



# Frank, Rimerman Consulting

a division of Frank, Rimerman + Co. LLP

## Business Valuation for Auditors

May 2007

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# Objective/Broad Outline

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**Objective:** Increasing Auditor Familiarity and Comfort with Valuation Principles and Methods.

- Part I – What the Auditor Needs to Know About Selecting and Using a Valuation Expert
- Part II – Business Valuation Fundamentals
- Part III – Special Valuation Considerations

# When Should Your Client Engage a Valuation Analyst?

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When your client has:

Entered into a business combination and:

- Purchase consideration paid client's stock, and/or
- Purchase price in excess of net tangible assets.

Granted equity securities as a compensation instrument

- Current thinking on 409A
- Where we're (likely) headed.

# What Should the Auditor Know?

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Management responsible for making accounting estimates.

Auditor is responsible for evaluating the reasonableness of accounting estimates (SAS 57).

Auditor should:

1. Obtain an understanding of the events and transactions
2. Evaluate that the methodology used to estimate Fair Value is appropriate
3. Evaluate the assumptions underlying the methodology are not unreasonable

# There's Help!

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AICPA Practice Aid - Valuation of Privately-Held-Company Equity Securities Issued as Compensation.



AICPA Practice Aid - Assets Acquired in a Business Combination to Be Used in Research and Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries.



Other Resources: **AICPA Toolkit** – Auditing Fair Value Measurements and Disclosures.

# Selection of a Valuation Analyst?

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1. **Professional Certification/Credentials** (this can be confusing...see accompanying handout)
2. **Reputation** (like choosing any other professional)
3. **Experience** in valuing assets that are the subject of your client's needs
4. **Ethical character**
5. **Familiarity with the Practice Aids**

Selection is the responsibility of the client; however, the auditor may make recommendations.

# Interaction with Valuation Analyst

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Get involved early on valuations where a valuation review will be required!

- Plan ahead if a Valuation Analyst will be needed on the engagement to avoid last minute “fire drills”
- Perform appropriate reviews or tests of data provided to the Valuation Analyst
- Understand methods and assumptions used by the Valuation Analyst (our Valuation group can assist with this!)
- Evaluate whether the Analyst's findings support the related assertions in the financial statements

# The “Art” of Business Valuation

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Valuation Analysts work in an entirely different framework from what an auditor is accustomed.

- No authoritative body like FASB
- The Great Minds don't think alike!

An enormous amount of judgment goes into a valuation analysis...

# Part II - Fundamentals

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## Business Valuation Methods

- Income Approach
- Market Approach
- Asset-Based Approach

# Income Approach

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Value today should equal future cash flows discounted at the opportunity cost of capital.

Requires two fundamental steps:

1. Measure the **expected future free cash flows** that inure to the benefit of the equity owners, and
2. **Convert** those free cash flows to a **present value** using appropriate cost of capital.

Put yourself in the buyers shoes...

# Income Approach, continued

## Tech Co

### Valuation Analysis

#### Discounted Future Cash Flows

Inputs:	
Discount Rate	25.00%
Sustainable Growth Rate	3.00%

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Discounted Future Earnings:</b>					
Forecasted After Tax Earnings	200	350	400	450	500
Add Back Depreciation	35	40	45	45	45
Deduct Capital Additions	(50)	(45)	(45)	(45)	(45)
Add (Deduct) Working Capital Change	(55)	(75)	(75)	(75)	(75)
Add (Deduct) LTD borrowings/repayments	100	(25)	(25)	(25)	0
<b>Net Forecasted Future Cash Flow</b>	<b>130</b>	<b>270</b>	<b>325</b>	<b>375</b>	<b>425</b>
Discounted	123	204	197	182	165
Five Year Sum					870
Terminal Value	1,990				771
<b>Implied Value of Equity Capital</b>					<b>1,641</b>

# Income Approach, continued

**Tech Co**  
**Valuation Analysis**  
**Discounted Future Cash Flows**

Inputs:	
Discount Rate	25.00%
Sustainable Growth Rate	3.00%

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Discounted Future Earnings:</b>					
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Five Year Sum					870
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<b>Implied Value of Equity Capital</b>					<b>1,641</b>

# Income Approach, continued

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**Tech Co**

**Valuation Analysis**

**Computation of Terminal Value**

Inputs:

Discount Rate	25.00%
Sustainable Growth Rate	3.00%

	Year 5
<b>Discounted Future Earnings:</b>	
Forecasted After Tax Earnings	500
Add Back Depreciation	45
Deduct Capital Additions	(45)
Add (Deduct) Working Capital Change	(75)
Add (Deduct) LTD borrowings/repayments	0
<b>Net Forecasted Future Cash Flow</b>	<b>425</b>
Growth of Year 5 Cash Flow (at sustainable rate)	438
Terminal Value (\$438/Cap Rate of 22%)	1,990
<b>Discounted Terminal Value (to Valuation Date)</b>	<b>771</b>

# Income Approach, continued

**Tech Co**  
**Valuation Analysis**  
**Discounted Future Cash Flows**

Inputs:	
Discount Rate	25.00%
Sustainable Growth Rate	3.00%

	Year 1	Year 2	Year 3	Year 4	Year 5
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# Income Approach, continued

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**Valuation Analysis**  
**Discounted Future Cash Flows**

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<b>Implied Value of Equity Capital</b>					<b>1,641</b>

# Income Approach, continued

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<b>Tech Co</b>	
<b>Valuation Analysis</b>	
<b>Discount Rate Build-Up</b>	
Long-term US Treasury Bond	4.00%
Equity risk premium ( <i>Ibbotson Associates</i> )	7.50%
Equity size premium ( <i>Ibbotson Associates</i> )	6.00%
Company-specific premium, including industry risk (judgmental)	7.50%
<b>Discount Rate</b>	<b>25.00%</b>
<b>Sustainable Growth Rate</b>	<b>3%</b>
<b>Capitalization Rate</b>	<b>22.00%</b>

# Income Approach, continued

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<b>Valuation Analysis</b>	
<b>Discount Rate Build-Up</b>	
Long-term US Treasury Bond	4.00%
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# Income Approach, continued

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# Income Approach, continued

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<b>Capitalization Rate</b>	<b>22.00%</b>

# Income Approach, continued

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## Other Cost of Capital Methods

In addition to the Build-Up method, there are other commonly used methods for to establishing a Discount Rate.

Two common alternatives are:

- Capital Asset Pricing Model (CAPM)
- Weighted-Average Cost of Capital (WACC)

# Company A: Internet Retailer – DCF Analysis

(\$ ,000)	Year Ending December 31,						Terminal
	2007	2008	2009	2010	2011	2012	Year
	Budget	Forecast	Forecast	Forecast	Forecast	Forecast	Normalized
<b>Statement of Cash Flows</b>							
Earnings Before Interest and Taxes (EBIT)	\$ 9,210	\$ 13,762	\$ 20,379	\$ 30,121	\$ 39,220	\$ 49,046	\$ 54,441
Less: Taxes (at 40%)	(2,774)	(5,505)	(8,151)	(12,048)	(15,688)	(19,618)	(21,776)
Plus: Use of NOL carryforward	1,643	-	-	-	-	-	-
Net Operating Profit After Tax	\$ 8,079	\$ 8,257	\$ 12,227	\$ 18,072	\$ 23,532	\$ 29,427	\$ 32,664
Plus: Depreciation & Amortization	2,192	4,963	7,363	9,579	11,503	13,800	18,000
Gross Cash Flow	\$ 10,271	\$ 13,220	\$ 19,590	\$ 27,651	\$ 35,035	\$ 43,228	\$ 50,664
Less: Capital Expenditures	(7,732)	(13,500)	(10,750)	(11,487)	(12,261)	(13,086)	(18,000)
Plus: Changes in Working Capital	12,226	9,570	10,881	11,792	12,763	13,785	14,889
Invested Capital Net Cash Flow	\$ 14,765	\$ 9,290	\$ 19,721	\$ 27,956	\$ 35,537	\$ 43,927	\$ 47,553
<b>Discounted Cash Flow Calculation:</b>							
Forecasted Invested Capital Net Cash Flow	\$ 14,765	\$ 9,290	\$ 19,721	\$ 27,956	\$ 35,537	\$ 43,927	\$ 47,553
Discount period (mid-term convention)	0.375	1.25	2.25	3.25	4.25	5.25	5.75
Sustainable Growth Rate							11.00%
Terminal Value, as of 1/1/2013							<u>365,794</u>
Present Value, as of 1/1/2007	13,621	7,100	12,154	13,895	14,244	14,199	106,185
Present Value of Future Cash Flows:	\$ 181,398						
Plus: Cash	32,205						
Less: Debt	<u>(16,866)</u>						
Implied Value of Equity	<u>\$ 196,737</u>						

## Company A: Internet Retailer – Conclusion

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### Synthesis of Value (\$ ,000)

<b>Values implied by:</b>	<b>Implied Value</b>	<b>Weight</b>	<b>Weighted Value</b>
Guideline Public Company Method	195,900	20%	39,180
Guideline Transaction Method	202,400	5%	10,120
Income Method	196,737	75%	147,553
<b>Equity Implied Value</b>			<b>\$ 196,853</b>

# Company B: Internet Media – DCF Analysis

(\$ ,000)	Year Ending December 31,			Terminal Year Normalized
	2007 Budget	2008 Forecast	2009 Forecast	
<b>Statement of Cash Flows</b>				
Earnings Before Interest and Taxes (EBIT)	(10,214)	(1,604)	45,105	50,066
Less: Taxes (at 40%)	-	-	(18,042)	(20,026)
Plus: Use of NOL carryforward	-	-	15,363	-
Net Operating Profit After Tax	(10,214)	(1,604)	42,426	30,040
Plus: Depreciation & Amortization	107	136	18	18
Gross Cash Flow	(10,107)	(1,467)	42,444	30,058
Less: Capital Expenditures	(202)	(92)	(10)	
Plus: Changes in Working Capital	249	(343)	(2,507)	
Invested Capital Net Cash Flow	(10,060)	(1,903)	39,928	30,058
Plus: Use of available cash	2,129	-	-	-
Invested Capital Net Cash Flow	(7,931)	(1,903)	39,928	30,058

## Discounted Cash Flow Calculation:

Growth Rate	11.00%		
Net Forecasted Future Cash Flow	(7,931)	(1,903)	39,928
Present Value as of Valuation Date <i>(using the mid-term convention)</i>	(7,009)	(1,261)	19,032

## Present Value of Future Cash Flow:

Sum of Cash Flows	10,763
Terminal Value	70,220
Implied Value	80,982
Less: Debt	-
Plus: Excess cash	-
<b>Implied Value of Equity</b>	<b>80,982</b>

## Terminal Value

Revenue	75,234
Times	3.19
Value	240,010
Gordon Growth	107,350
Selected	173,680
<i>As Rev. Multiple</i>	<i>2.31</i>

## Company B: Internet Media Provider – Conclusion

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### Synthesis of Value (\$ ,000)

Values implied by:	Implied Value	DLOM	Discounted Value	Weight	Weighted Value
<b>Guideline Public Company Method</b> <i>See Schedule 2</i>	\$ 12,260	35.0%	\$ 7,969	75%	\$ 5,977
<b>Guideline Transaction Method</b> <i>See Schedule 3</i>	16,240	0.0%	16,240	25%	4,060
<b>Equity Implied Value</b>					<b>\$ 10,037</b>

# Market Approach

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Economic principle of substitution:

A prudent investor would not pay more for an investment opportunity than he or she would have to pay for an equally desirable alternative.

Generally applied based on selection and analysis of:

- Peer Group of public company “guidelines” or
- Selected company acquisitions

# Market Approach, continued

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Application of the public company “guideline” method:

1. Select a group of peer or “guideline” public companies
2. Analyze selected companies and
3. Select one or more multiples from the guidelines to apply to the subject company’s fundamentals

# Market Approach, continued

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Analyze selected guidelines; evaluate for comparability with subject company. Generally 6 financial comparisons:

- **Size** – generally measured by revenues or assets
- **Growth** – generally measured as compound growth of sales or some other income statement measure
- **Leverage** – generally debt to equity
- **Profitability** – generally measured by net income, margin or other income statement steps; varies by industry
- **Turnover** – generally measured as a percentage of sales to assets or sales to book equity; varies by industry
- **Liquidity** – generally measured by current, quick, or similar ratios)

# Market Approach, continued

## Tech Co

### Business Valuation Analysis

#### Guideline Public Company Analysis

(\$,000 except per share data)

#### Valuation Ratios Based on Peer Group

	AGIL	CIMK.OB	ITWH	MANU	NCLM	Mean	Median
<b>Market Capitalization of Equity (MCE)</b>							
Price per Share	\$ 7.31	\$ 0.50	\$ 13.75	\$ 2.14	\$ 13.77		
Shares Outstanding (000)	22,990	7,294	7,550	83,600	34,500		
Market Cap. of Equity	\$ 168,057	\$ 3,647	\$ 103,813	\$ 178,904	\$ 475,065	\$ 185,897	\$ 168,057
<b>Financial Statistics</b>							
Revenues - trailing 12 months	\$ 48,431	\$ 2,184	\$ 157,292	\$ 205,637	\$ 71,762	\$ 97,061	\$ 71,762
Gross Margin - trailing 12 months	32,257	1,861	97,021	95,671	47,697	54,901	47,697
Net Income - trailing 12 months	Loss	Loss	Loss	Loss	19,462		
<b>Implied Ratios</b>							
MCE/Revenues	3.47	1.67	0.66	0.87	6.62	2.66	1.67
MCE/Gross Margin	5.21	1.96	1.07	1.87	9.96	4.01	1.96
MCE/Net Income	NA	NA	NA	NA	24.41	24.41	24.41

# Market Approach, continued

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**Tech Co**  
**Business Valuation Analysis**  
**Application of Market Multiplier**

Tech Co Fundamental	\$	800
Selected Multiplier		2.5
<b>Implied Value of Equity Capital</b>		<b>2,000</b>

# Asset-Based Approach

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Also based on economic principle of substitution.

Premise:

Value of the business enterprise is the value of the business assets (both tangible and intangible) less the value of the business liabilities (both recorded and contingent).

## Asset-Based Approach, continued

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Not frequently used in valuation of entire business.

Can be more costly and cumbersome than other methods to value intangible assets separately.

Used in valuing companies where underlying assets can be separately valued (like Real Estate holding companies) or companies that are capital intensive.

# Reconciliation of Value

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When more than one valuation Approach has been used, the approaches need to be compared with each other.

For Tech Co:

<b>Application of Income Approach</b>	<b>\$ 1,641</b>
<b>Application of Market Approach</b>	<b>\$ 2,000</b>
<b>Application of Asset-Based Approach</b>	<b>N/A</b>

# Part III – Special Valuation Considerations

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- FAS 141/142 Analyses
- Valuation of Privately-Held Equity Securities Issued as Compensation

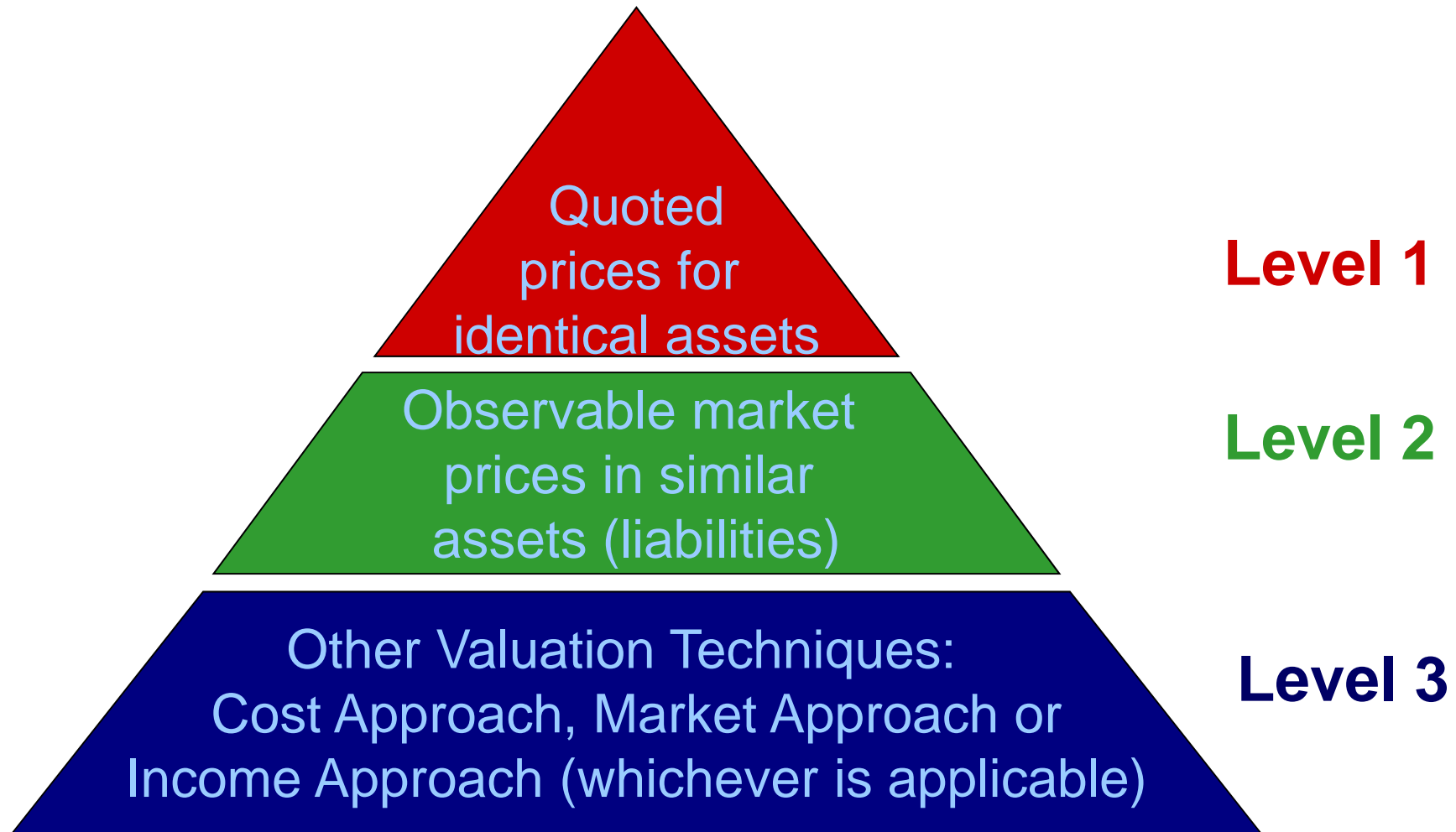
# Standard of Value for FAS 141/142

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- Premise of Value – Fair value is different from Fair Market Value
- Considers assumptions of a market participant:
  - Includes all potential buyers who would take an active role in managing the business
  - Should consider only those that have the ability to purchase the asset being valued

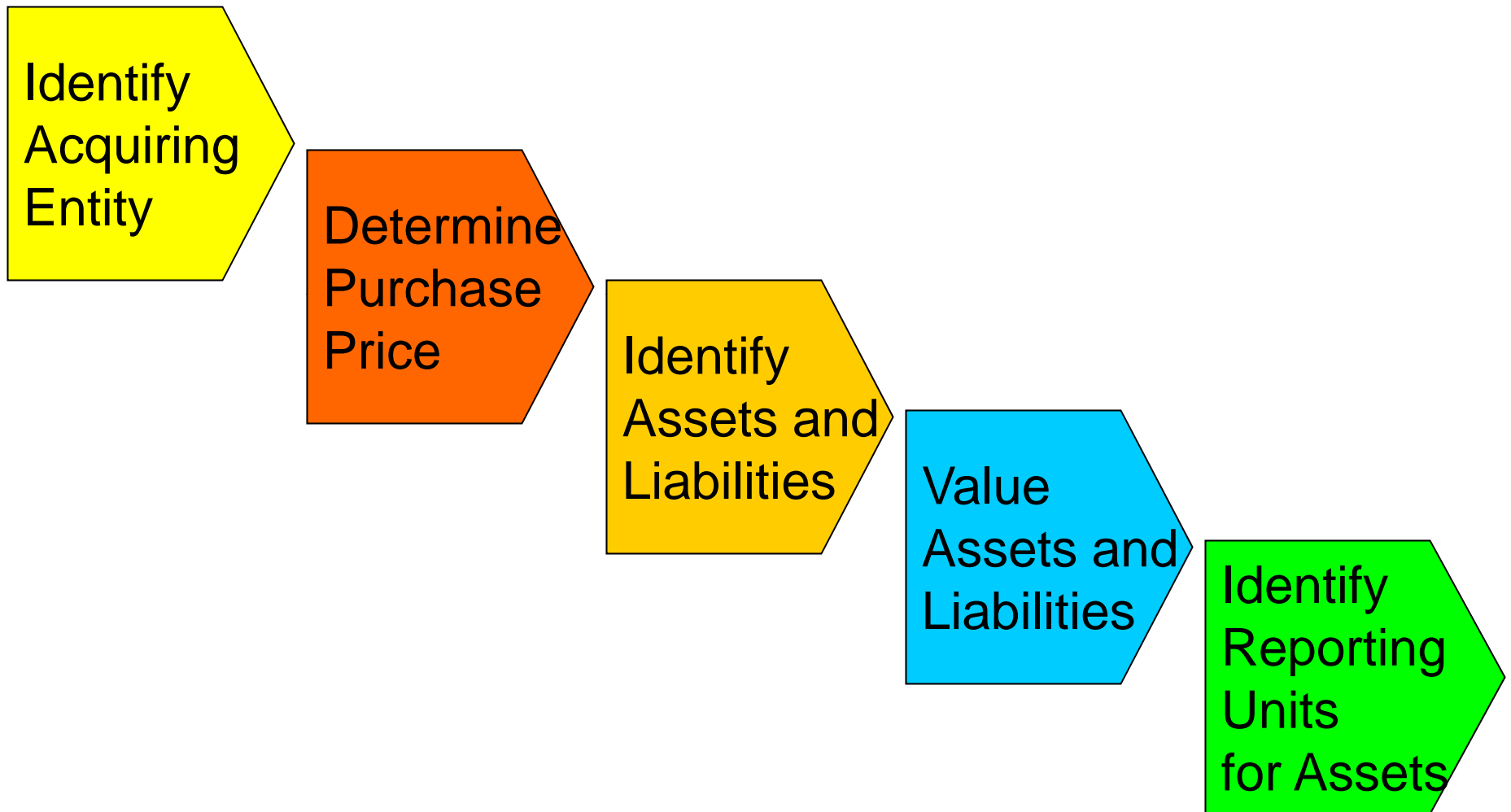
# The Fair Value Hierarchy

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# FAS 141 - Steps

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# Determining Purchase Price

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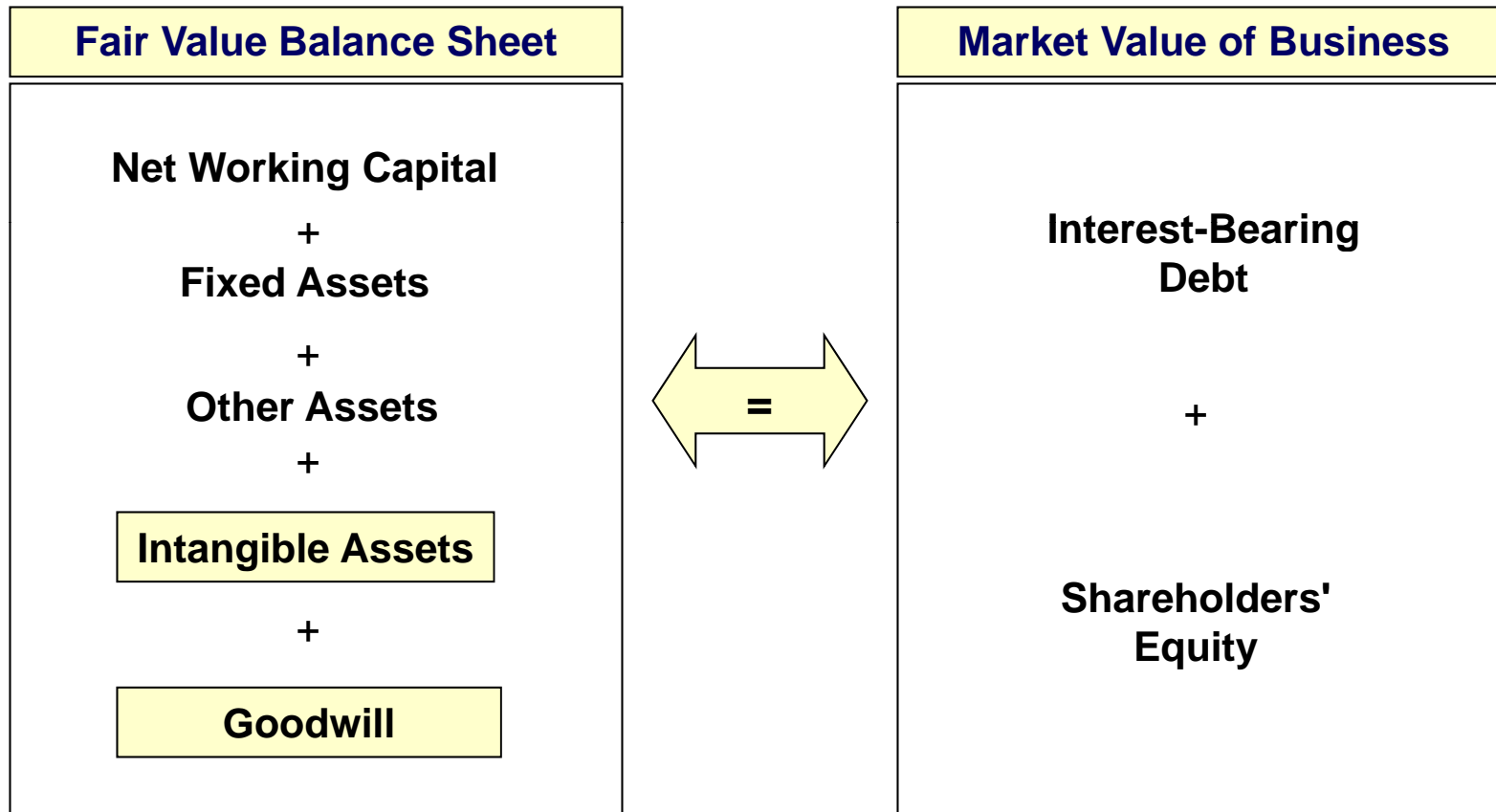
- Fair value of business acquired determined by FV of consideration paid or FV of acquired business - whichever is more clearly evident
- Example:

➤ Cash payment	\$2,500,000
➤ Stock issued	\$3,500,000
➤ Liabilities assumed	\$1,500,000

Fair Value of Business	\$7,500,000
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# Purchase Price Allocation

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# Recognition of Intangible Assets

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- According to FAS 141, paragraph 39, an intangible asset shall be recognized as an asset apart from goodwill if it arises from contractual or other legal rights or, if not contractual, only if it is capable of being sold transferred, licensed, rented or exchanged
- The Assembled Workforce is not recognized separately from goodwill

# Types of Intangible Assets

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- In-process research and development
- Trade names and trademarks
- Patents
- Copyrights
- Franchise agreements
- Trade secrets
- Distribution agreements
- Proprietary technology
- Covenants not-to-compete
- Assembled and trained workforce
- Customer, subscriber and advisor list

# Discounted Cash Flow Analysis

## Company Valuation

### PURCHASE PRICE ALLOCATION

#### WageWorks, Inc. Acquisition of FlexBen Corporation

December 15, 2004

#### Calculation of Free Cash Flow

Net Income	\$	1,612,068	\$	2,660,214	\$	4,062,674	\$	5,252,208	\$	6,456,818	\$	7,088,436	\$	7,786,186
Plus Depreciation	\$	593,220	\$	651,609	\$	721,897	\$	802,131	\$	893,829	\$	1,006,651	\$	1,125,807
Less Capital Expenditures	\$	(820,000)	\$	(924,600)	\$	(1,033,520)	\$	(1,158,280)	\$	(1,332,022)	\$	(1,469,443)	\$	(1,616,388)
Less Increase in Net Working Capital	\$	-	\$	(147,259)	\$	(258,730)	\$	(296,356)	\$	(412,709)	\$	(316,410)	\$	(348,051)
Free Cash Flow	\$	<u>1,385,288</u>	\$	<u>2,239,965</u>	\$	<u>3,492,321</u>	\$	<u>4,599,702</u>	\$	<u>5,605,916</u>	\$	<u>6,309,234</u>	\$	<u>6,947,554</u>
PV Factor	21.00%	83%	68%	56%	47%	39%	32%	26%						
PV of Cash Flows		1,144,866	1,529,926	1,971,324	2,145,795	2,161,323	2,010,316	1,829,508						
Sum of Cash Flows		12,793,059												
Terminal Value		12,196,722												46,317,031
Business Enterprise Value		<u>24,989,781</u>												
PV of Tax Benefit		<u>2,991,448</u>												
Value of Entity		<u><u>27,981,229</u></u>												
IRR		20%												
TV Growth Rate		6%												
Transaction Consideration		<u><u>25,705,376</u></u>												

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# Cost of Capital

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## PURCHASE PRICE ALLOCATION

### WageWorks, Inc. Acquisition of FlexBen Corporation

December 15, 2004

Build-Up Method for Cost of Capital

	<u>Equity Rate Components</u>
Long-term US Treasury Bond	5.02%
Equity risk premium ( <i>Ibbotson Associates</i> )	7.20%
Equity size premium ( <i>Ibbotson Associates</i> )	6.40%
Company Specific Risk Premium	2.00%
Weighted Average Cost of Debt, Net of Tax	
<hr/> <u>Cost of Capital</u>	<hr/> 20.62%
<hr/> <b><u>Cost of Capital, rounded</u></b>	<hr/> 21.00%

# Income Method

## Customer Relationships

### PURCHASE PRICE ALLOCATION

#### WageWorks, Inc. Acquisition of FlexBen Corporation

December 15, 2004

#### Value of Customer Contracts and Customer Relationships

		2005	2006	2007	2008	2009	2010	2011
Attrition Rate			0%	95%	70%	75%	70%	50%
Revenues		\$ 20,500,000	\$ 21,225,000	\$ 20,163,750	\$ 14,114,625	\$ 10,585,969	\$ 7,410,178	\$ 3,705,089
Service Delivery Costs and Administration		(15,682,500)	(15,069,750)	(13,207,256)	(9,245,079)	(6,933,810)	(4,853,667)	(2,426,833)
Sales & Marketing		(369,000)	(396,675)	(425,632)	-	-	-	-
Technology and Depreciation		(678,703)	(663,770)	(610,115)	(411,731)	(308,798)	(216,159)	(98,006)
Total Expenses		<u>(16,730,203)</u>	<u>(16,130,195)</u>	<u>(14,243,004)</u>	<u>(9,656,811)</u>	<u>(7,242,608)</u>	<u>(5,069,826)</u>	<u>(2,524,840)</u>
Income from operations		3,769,797	5,094,805	5,920,746	4,457,814	3,343,361	2,340,353	1,180,249
Income Taxes		<u>(1,507,919)</u>	<u>(2,037,922)</u>	<u>(2,368,298)</u>	<u>(1,783,126)</u>	<u>(1,337,344)</u>	<u>(936,141)</u>	<u>(472,100)</u>
Net Income		<u>2,261,878</u>	<u>3,056,883</u>	<u>3,552,448</u>	<u>2,674,689</u>	<u>2,006,016</u>	<u>1,404,212</u>	<u>708,150</u>
Contributory Asset Charge	5.9%	(1,205,013)	(1,247,630)	(1,185,248)	(829,674)	(622,255)	(435,579)	(217,789)
Net Cash Flow		1,056,865	1,809,253	2,367,200	1,845,015	1,383,761	968,633	490,360
Present Value Factor	21%	0.83	0.68	0.56	0.47	0.39	0.32	0.26
Present Value of Cash Flows		873,442	1,235,744	1,336,222	860,713	533,500	308,636	129,127
Sum of Cash Flows		5,277,386						
Amortization Tax Benefit		<u>631,739</u>						
Value of Existing Customers/Contracts		<u>\$ 5,909,125</u>						

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# Contributory Asset Charge

## PURCHASE PRICE ALLOCATION

### WageWorks, Inc. Acquisition of FlexBen Corporation

December 15, 2004

#### Contributory Asset Charge:

	Value	After-tax Return%	Year					Average Contributory Charge
			1	2	3	4	5	
Revenues			\$ 20,500,000	\$ 23,115,000	\$ 25,838,000	\$ 28,957,000	\$ 33,300,550	
Net Working Capital	\$ 2,049,047	4.20%	2,049,047	2,196,306	2,455,036	2,751,392	3,164,101	
Return on Working Capital			86,060	92,245	103,112	115,558	132,892	
As % of Revenues			0.42%	0.40%	0.40%	0.40%	0.40%	0.40%
Fixed Assets (Excl.tech)	518,778	6.00%	582,085	644,872	716,546	798,460	899,244	
Return on Fixed Assets			34,925	38,692	42,993	47,908	53,955	
As % of Revenues			0.17%	0.17%	0.17%	0.17%	0.16%	0.17%
Assembled Workforce		21.00%						
Value	3,370,905		707,890	785,758	872,191	968,132	1,074,627	
Percentage of Total Revenue			3.45%	3.40%	3.38%	3.34%	3.23%	3.36%
Technology Assets	1,179,248	21.00%	1,948,718	2,158,921	2,398,870	2,673,105	3,010,514	
Return on Technology			409,231	453,373	503,763	561,352	632,208	
As % of Revenues			2.00%	1.96%	1.95%	1.94%	1.90%	1.95%

#### Aggregate Contributory Asset Charges Applied To:

Customer Contracts/Customer Relationships 5.9%

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# Income Method

## Covenant Not to Compete

### PURCHASE PRICE ALLOCATION

WageWorks, Inc. Acquisition of FlexBen Corporation

December 15, 2004

### Value of Non-Compete Agreement

	2005	2006	2007	2008	2009	2010	2011
Revenues per Schedule 1	\$ 20,500,000	\$ 21,225,000	\$ 20,163,750	\$ 14,114,625	\$ 10,585,969	\$ 7,410,178	\$ 3,705,089
Adjusted Revenues	<u>19,270,000</u>	<u>20,163,750</u>	<u>19,155,563</u>	<u>13,408,894</u>	<u>10,056,670</u>	<u>7,261,975</u>	<u>3,630,987</u>
Expenses per Schedule 1	(16,730,203)	(16,130,195)	(14,243,004)	(9,656,811)	(7,242,608)	(5,069,826)	(2,524,840)
Adjusted Expenses	<u>(16,304,491)</u>	<u>(15,878,188)</u>	<u>(13,530,854)</u>	<u>(9,173,970)</u>	<u>(6,880,478)</u>	<u>(4,968,429)</u>	<u>(2,474,343)</u>
Adjusted Operating Income	<u>2,965,509</u>	<u>4,285,562</u>	<u>5,624,709</u>	<u>4,234,924</u>	<u>3,176,193</u>	<u>2,293,545</u>	<u>1,156,644</u>
Operating Income per Schedule 1	3,769,797	5,094,805	5,920,746	4,457,814	3,343,361	2,340,353	1,180,249
Difference in operating income	<u>(804,288)</u>	<u>(809,243)</u>	<u>(296,037)</u>	<u>(222,891)</u>	<u>(167,168)</u>	<u>(46,807)</u>	<u>(23,605)</u>
After-tax difference in operating income	<u>\$ (482,573)</u>	<u>\$ (485,546)</u>	<u>\$ (177,622)</u>	<u>\$ (133,734)</u>	<u>\$ (100,301)</u>	<u>\$ (28,084)</u>	<u>\$ (14,163)</u>
Present Value Factor	21.00% 0.83	0.68	0.56	0.47	0.39	0.32	0.26
Present Value of Cash Flows	\$ (398,820)	\$ (331,634)	\$ (100,263)	\$ (62,388)	\$ (38,670)	\$ (8,949)	\$ (3,730)
Sum of Cash Flows	\$ (944,455)						
Amortization Tax Benefit	<u>(57,025)</u>						
Cost of Competition - Fair Value	<u>\$ (1,001,479)</u>						

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# Cost Method Technology Platform

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## PURCHASE PRICE ALLOCATION

### WageWorks, Inc. Acquisition of FlexBen Corporation

December 15, 2004

### Value of Technology Platform and Service Delivery

#### Technology Platform

##### Cost Approach

9 years of engineering time at \$97,000/year	\$	873,000
2 years of consultant time at \$200,000/year		400,000
Hardware and Software Licenses		250,000
Replacement Cost of Technology Platform		<u>1,523,000</u>
After-tax Cost		913,800
Value of Tax Benefit		<u>109,388</u>
Total Value of Technology Platform, rounded	\$	<u><u>1,023,000</u></u>

#### Service Delivery

Relief from Royalty Method	\$	<u><u>156,248</u></u>
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Value of Technology Platform and Service Delivery	\$	<u><u>1,179,248</u></u>
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# Relief from Royalty Method

## Platform Name

### PURCHASE PRICE ALLOCATION

WageWorks, Inc. Acquisition of FlexBen Corporation

December 15, 2004

### Relief From Royalty Method

	2005	2006
Revenues	\$20,500,000	\$ 9,246,000
Assumed Royalty Rate	1.00%	1.00%
Avoided Annual Royalty Payments	205,000	92,460
Income Taxes	(82,000)	(36,984)
After-tax Royalty Payments	<u>123,000</u>	<u>55,476</u>
Present Value Factor at 21%	0.83	0.68
Present Value of Cash Flows	101,653	37,891
Sum of Cash Flows	139,544	
Amortization Tax Benefit	16,704	
Value	<u>\$ 156,248</u>	

# Weighted Average Return on Assets

## PURCHASE PRICE ALLOCATION

### WageWorks, Inc. Acquisition of FlexBen Corporation

December 15, 2004

#### Weighted Average Return on Assets

	Fair Value	Percent of Total	Required Return	Weighted Return
<b>Tangible Assets</b>				
Working Capital	\$ 2,049,047	7.97%	4.20%	0.00%
Fixed Assets (Excl. Technology)	518,778	2.02%	6.00%	0.08%
Other Assets	97,542	0.38%	6.00%	0.02%
Total	<u>\$ 2,665,367</u>	<u>10.37%</u>		
<b>Intangible Assets</b>				
Customer Contracts & Customer Relationships	\$ 5,909,000	22.99%	21.00%	4.83%
Technology Platform	1,179,000	4.59%	21.00%	0.96%
Covenant Not to Compete	1,001,000	3.89%	21.00%	0.82%
Goodwill	14,951,009	58.16%		
Total	<u>\$ 23,040,009</u>			
<b>Components of Goodwill</b>				
Workforce	\$ 3,370,905	13.11%	21.00%	2.75%
Balance of Goodwill	11,580,104	45.05%	25.00%	11.26%
	<u>\$ 14,951,009</u>			
Total Consideration	\$ 25,705,376	100.00%		20.73%
Weighted Average Return on Assets				20.73%
Cost of Capital				21.00%

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# “Cheap Stock”

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What was the genesis of the “cheap stock” project?

What was the result?

- AICPA Practice Aid Project (2001-2004)

How does this relate to 409(A)?

# Valuation of Preferred vs. Common

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- Generally, venture-backed companies have **both common and preferred equity**, each of which provides its holders with various rights/privileges
- The Valuation Analyst must determine how enterprise value is **distributed** among the various equity claimants
- Preferred rights are both **Economic and Non-Economic**
  - Allocation of fair value of a company to different classes of stock requires an understanding of these rights

# Preferred Stock Rights, continued

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- Methods of valuing/quantifying the various preferred stock rights:
  - Bottom-up approach
    - Uses the pricing of recent instruments to derive the value of another class of equity
  - Top-down approach
    - Establishes enterprise fair value and then allocates among the various equity classes

# Enterprise Value Allocation Methods

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- Practice Aid discusses three enterprise value allocation methods the task force observed are used in practice:
  - Probability-weighted expected return method
  - Option-pricing method
  - Current-value method

# Enterprise Value Allocation Methods, continued

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- No single method superior in all circumstances over the others
- Tradeoffs, e.g., apparent theoretical superiority vs. complexity and difficulty in corroborating estimates of certain critical inputs
- No method currently that takes into account all rights of preferred stockholders
- Practice Aid provides some guiding principles to be followed before selecting any method

# Probability-Weighted Expected Return Method

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- Value of common estimated based on analysis of future values for the company assuming various future outcomes
  - IPO, merger or sale, dissolution, continued operation as a viable private company
- Estimation of ranges of value for each possible outcome/date combination, and application of probability factors

# Probability-Weighted Expected Return Method, continued

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## ■ Advantages

- **Conceptual merit**—method considers terms of shareholder agreements including rights of each share class, at the date in the future those rights will be executed or abandoned
- **Forward-looking**—incorporates future economic events and outcomes into determination of value of as the present
- **Ratio of preferred to common value** resulting from method is generally not overly sensitive to changes in the probability estimates

## ■ Disadvantages

- **Complex and may be costly**; requires a number of assumptions
- **Difficulty of objectively supporting probabilities** and estimated values under each possible future outcome

Use of method generally appropriate when company can more effectively determine likely liquidity options. Good in later stage.

# The PWERM



## Schedule 1

### Conclusions of Value September 30, 2006

#### Probability Weighted Expected Return Method (\$ ,000)

<u>Event</u>	<u>Probability</u>	<u>Derived Value</u>	<u>Adjustment for Lack of Marketability</u>	<u>Implied Value</u>
<b>IPO at June 30, 2008</b>				
<i>Schedule 2</i>	15.0%	\$ 83,352	\$ (23,338)	\$ 60,013
<b>Sale or Merger at June 30, 2008</b>				
<i>Schedule 3</i>	50.0%	\$ 114,547	-	\$ 114,547
<b>Private Company</b>				
<i>Schedule 7</i>	35.0%	\$ 58,645	\$ (20,526)	\$ 38,119
<b>Total</b>	<u>100.0%</u>			<u>\$ 80,000</u>

<b>Value of One Share of Common Stock</b>	<b>Schedule 1A</b>	<b>\$ 6.22</b>
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# PWERM Equity Allocation



Schedule 1A

## Allocation of Value to Ownership Classes September 30, 2006

Scenario Value	IPO		Sale		Private Company Schedule 7
	Schedule 2		Schedule 3		
	As of 6/30/08	PV by Class as of 9/30/06	As of 6/30/08	PV by Class as of 9/30/06	
	\$ 86,214,672	\$ 60,013,263	\$ 164,557,479	\$ 114,546,990	\$ 38,119,015

### Allocation of Value to Ownership Classes

#### Liquidation Preference

Series B	\$ -	\$ -	\$ 47,224,320	\$ 41,244,444	\$ 28,266,145
Series A	-	-	-	-	9,852,870
Common	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 47,224,320</b>	<b>\$ 41,244,444</b>	<b>\$ 38,119,015</b>

**Funds Available for Participation** \$ 86,214,672 \$ 60,013,263 \$ 117,333,159 \$ 73,302,545 \$0

#### Additional Participation

Series B	21,340,338	14,854,819	-	-	-
Series A	26,083,163	18,156,257	46,970,612	29,344,351	-
Common	38,791,171	27,002,187	70,362,547	43,958,194	-
<b>Total</b>	<b>86,214,672</b>	<b>60,013,263</b>	<b>117,333,159</b>	<b>73,302,545</b>	<b>-</b>

**Total allocated Value** \$ 86,214,672 \$ 60,013,263 \$ 164,557,479 \$ 114,546,990 \$ 38,119,015

#### Number of Shares

Series B	2,425,860	2,425,860	2,425,860	2,425,860	2,425,860
Series A	2,965,000	2,965,000	2,965,000	2,965,000	2,965,000
Common	4,409,581	4,409,581	4,441,606	4,441,606	3,968,838
<b>Total</b>	<b>9,800,441</b>	<b>9,800,441</b>	<b>9,832,466</b>	<b>9,832,466</b>	<b>9,359,698</b>

#### Per Share Value

Series B	8.797	6.124	19.467	17.002	11.652
Series A	8.797	6.124	15.842	9.897	3.323
Common	8.797	6.124	15.842	9.897	-

**Probability** 15% 50% 35%

#### Probability Weighted Per Share Values For Each Scenario

Series B	0.919	8.501	4.078
Series A	0.919	4.948	1.163
Common	0.919	4.948	-

#### Allocation of Value to Ownership Classes

Weighted Value Per Share		Implied Value of Company	
Series B	13.50	Series B	32,743,596
Series A	7.03	Series A	20,844,119
Common	5.87	Common	25,870,951
		<b>Total</b>	<b>79,458,665</b>

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# Option-Pricing Method

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- Treats common and preferred stock as call options on the company's value:
  - Exercise prices based on the break points for liquidation and participation preferences and on option strike prices
  - Term is duration to liquidity event
  - Volatility is based on peer group
  - Option price determined using Black-Scholes, lattice model, etc.

# Option-Pricing Method, continued

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- **Advantages**

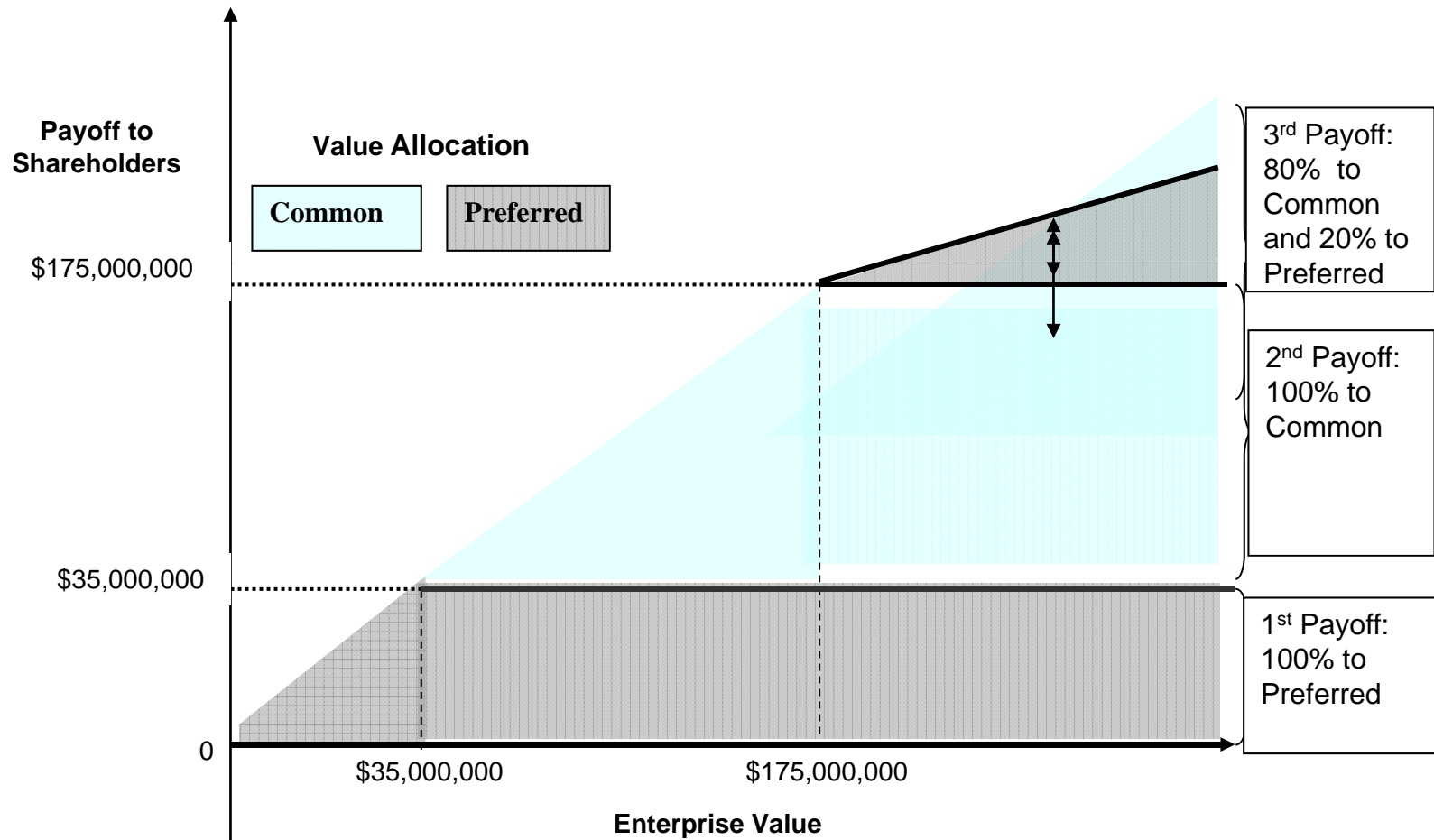
- Considers the various **rights and preferences** of equity classes
- Considers the effect of the liquidation preference as of the **future** liquidation date (not as of the valuation date)

- **Disadvantages**

- May be **complex** and costly
- Difficulty in formulating realistic **assumptions**
- **Sensitivity** of method to certain assumptions, e.g., **volatility**, that are not readily subject to validation

Use of method generally appropriate when company has many choices available and value depends on how well the company follows its various opportunities and challenges. Good in **early stage**.

# Illustration of Option Pricing Method



# Option Equity Allocation

NetShops Options Analysis  
September 30, 2006

Schedule 1A

**Key Assumptions**

MVIC of Company	\$ 95,543	Time to Liquidation	2.1
MVE of Company	\$ 80,000	Volatility	49.0%
Debt of Company	\$ 15,543	Risk Free Rate	4.71%

	Option		Liquidation Preference			
	No. of Shares	Exercise Price	Per Share	Total		
Series B	2,425,860		\$17.00	\$ 41,244,444		
Series A	2,965,000		4.85	14,376,780		
Common	3,968,838					
Options @ \$3.50	440,743	\$3.50				
Options @ \$9.04	32,025	9.04				
Total	9,832,466			\$ 55,621,224		

	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
	<i>Debt only</i>	<i>Preferred Pref.</i>	<i>Common</i>	<i>\$3.50 options</i>	<i>Series A convert</i>	<i>\$5.03 options</i>	<i>Series B convert</i>
<b>Value Allocation</b>							
Exercise Price - start	\$ -	\$ 15,543	\$ 71,164	\$ 85,055	\$ 92,545	\$ 123,454	\$ 182,714
Exercise Price - end	15,543	71,164	85,055	92,545	123,454	182,714	and above
Debt	\$ 15,543	\$ 15,543	\$ 15,543	\$ 15,543	\$ 15,543	\$ 15,543	
Series B	-	41,244	41,244	41,244	41,244	41,244	
Series A	-	14,377	14,377	14,377	26,804	50,411	
Options @ \$9.04	-	-	-	-	-	544	
Options @ \$3.50	-	-	-	2,137	3,984	7,494	
Common Stock	-	-	13,891	19,244	35,878	67,478	
	<u>\$ 15,543</u>	<u>\$ 71,164</u>	<u>\$ 85,055</u>	<u>\$ 92,545</u>	<u>\$ 123,454</u>	<u>\$ 182,714</u>	
<b>Percentage Allocation</b>							
Debt	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Series B	0.0%	74.2%	0.0%	0.0%	0.0%	0.0%	24.7%
Series A	0.0%	25.8%	0.0%	0.0%	40.2%	40.0%	30.2%
Options @ \$9.04	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.3%
Options @ \$3.50	0.0%	0.0%	0.0%	10.0%	6.0%	6.0%	4.5%
Common Stock	0.0%	0.0%	100.0%	90.0%	53.8%	53.6%	40.4%
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
<b>Option Value</b>							
Option value - start	\$ 95,543	\$ 81,474	\$ 40,829	\$ 34,189	\$ 31,100	\$ 21,261	\$ 10,810
Option value - end	81,474	40,829	34,189	31,100	21,261	10,810	-
Call Value	\$ 14,069	\$ 40,645	\$ 6,640	\$ 3,089	\$ 9,839	\$ 10,451	\$ 10,810
Debt	\$ 14,069	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Series B	-	30,139	-	-	-	-	2,667
Series A	-	10,506	-	-	3,956	4,184	3,260
Options @ \$9.04	-	-	-	-	-	45	35
Options @ \$3.50	-	-	-	309	588	622	485
Common Stock	-	-	6,640	2,780	5,295	5,600	4,363
	<u>\$ 14,069</u>	<u>\$ 40,645</u>	<u>\$ 6,640</u>	<u>\$ 3,089</u>	<u>\$ 9,839</u>	<u>\$ 10,451</u>	<u>\$ 10,810</u>
<b>Conclusion</b>		<b>No. of Shares</b>	<b>Per Share</b>				
Series B	\$ 32,806	2,425,860	\$ 13.52				
Series A	21,905	2,965,000	7.39				
Common Stock	24,679	3,968,838	6.22				
		<u>9,832,466</u>					

# Current Value Method

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- Determine enterprise value using one or more of the three valuation approaches, then allocate to the various series of preferred stock based on their liquidation preferences or conversion values, whichever is greater
- Assumes each class of shares will exercise its rights based on company value at the valuation date and not some future date

# Current Value Method, continued

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- Advantages

- Easy to implement; inexpensive
- Does not require complex or proprietary tools

- Disadvantages

- Results sensitive to changes in assumptions
- Focuses on the present and is not forward-looking - does not consider the possibility that company value will change between the valuation date and the date common shareholders receive their return

Use of method generally appropriate when acquisition or dissolution of company is imminent

# Current Equity Allocation



3/31/2006

Schedule 1A

<b>Probability:</b>	Series A	Series B
Liquidation	0%	100%
Conversion	100%	0%
Company Value	\$ 39,000,000	Schedule 1

	<u>Issuance Price</u>	<u>Liquidation Price</u>	<u>Conversion Price</u>	<u>Probability Weighted</u>	<u>Shares Outstanding</u>	<u>Total</u>	<u>Value Per Share</u>
Series B	\$0.55	\$0.55	\$0.16	\$0.55	27,219,377	14,997,877	\$0.55
Series A	\$1.00	\$0.08	0.16	\$0.16	87,336,060	13,567,825	\$0.16
Common Stock					136,487,477	10,434,298	\$0.08
					<u>251,042,914</u>	<u>\$ 39,000,000</u>	

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# Valuation for Auditors

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Questions?