

Hard Issues To Consider in Business Valuation Engagements

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Hard Issues to Consider in Business Valuation Engagements

- **Engagement Letters**
 - **Getting the entire agreement**
 - **Indemnification**
- **Getting document from document request**
 - **Client indicates they do not have documents when you know they do have them**
 - **Requesting documents multiple times**

Hard Issues to Consider in Business Valuation Engagements

- **Adjusted Book Value**
 - **Adjust Assets to Fair Market Value**
 - **Adjusting Accounts Receivable to Fair Market Value**
 - **What is the inventory pricing method**
 - **If Lower of Cost or Market, provide analysis**
 - **How to value marketable securities**

Hard Issues to Consider in Business Valuation Engagements

- **Adjusted Book Value**
 - **Adjust Assets to Fair Market Value**
 - **Getting appraisals for real and personal property**
 - **Property tax assessments**
 - **Adjust Liabilities to Fair Market Value**

Adjusted Net Assets

For The Period Ending 12/31/2010	Historical Cost or Basis	Fair Market Value Adjustments		Fair Market Value Prior to Discounts	Percentage Investment	Date Appraised	Source of Appraised Value
		Adj #	Amount				
Assets							
Current Assets							
Accounts Receivable (net)	1,479,316	1	0	1,479,316	16.9%		Adjust accounts receivables to net realizable value
Inventory	4,028,126	2	0	4,028,126	46.0%		Adjust inventory for LIFO Reserve
Account Receivable - Related Parties	1,100,386		0	1,100,386	12.6%		
Prepaid Expenses	71,386		0	71,386	0.8%		
Total Current Assets	6,679,214			6,679,214	76.2%		
Fixed Assets							
Furniture & Fixtures	111,503		0	111,503	1.3%		
Equipment	1,091,630		0	1,091,630	12.5%		
Computers Aids for Industrial Productivity (CAIP)	121,948		0	121,948	1.4%		
Software	0		0	0	0.0%		
Vehicles	118,387		0	118,387	1.4%		
Total Fixed Assets	1,443,468		0	1,443,468	16.5%		
Less Accumulated Depreciation	(919,795)	3	919,795	0	0.0%	12/31/01	Remove accumulated depreciation
Net Fixed Assets	523,673			1,443,468	16.5%		
Other Assets							
Other Assets	643,089		0	643,089	7.3%		
Total Other Assets	643,089			643,089	7.3%		
Total Assets	7,845,976			8,765,771	100.0%		

Assets should be adjusted to Fair Market Value

Accumulated Depreciation MUST be zero

Adjusted Net Assets

For The Period Ending 12/31/2010	Historical Cost or Basis	Fair Market Value Adjustments		Fair Market Value Prior to Discounts	Percentage Investment	Date Appraised	Source of Appraised Value	
		Adj #	Amount					
Liabilities & Stockholder's Equity								
Current Liabilities								
Accounts Payable	741,894		0	741,894	8.5%		<div style="border: 1px solid black; padding: 5px; color: red; font-weight: bold;"> Long-Term Debt MUST be adjusted to Fair Market Value </div>	
Accounts Payable to Related Parties	76,946		0	76,946	0.9%			
Accrued Expenses	330,497		0	330,497	3.8%			
Checks in Excess of Bank	152,512		0	152,512	1.7%			
Line of Credit	1,419,189		0	1,419,189	16.2%			
Income and Other Taxes Payable	(23,390)		0	(23,390)	-0.3%			
Customer Deposits Payable	185,000		0	185,000	2.1%			
Total Current Liabilities	2,882,648			2,882,648	32.9%			
Long-Term Liabilities								
Notes Payable to Various Banks	3,281,742		0	3,281,742	37.4%			
Total Long-Term Liabilities	3,281,742			3,281,742	37.4%			
Total Liabilities	6,164,390			6,164,390	70.3%			
Members' Equity								
Member - S. Smith, Revocable Trust @ 35%	621,990	2	321,928	943,919	10.8%			
Member - K. Smith, Revocable Trust @ 30%	533,135	3	275,939	809,073	9.2%			
Member - J. Smith @ 25%	444,279	4	229,949	674,228	7.7%			
Member - L. Smith @ 5%	88,856	5	45,990	134,846	1.5%			
Member - M. Smith @ 5%	88,856	6	45,990	134,846	1.5%			
Net Income	(95,529)		0	(95,529)	-1.1%			
Total Equity	1,681,586			2,601,381	29.7%			
Total Liability & Equity	7,845,976			8,765,771	100.0%			

Hard Issues to Consider in Business Valuation Engagements

- **Market Approach**
 - **Public company data**
(Comparability)
 - **Company capital structure**
 - **Company credit status**
 - **Depth of management**
 - **Experience level of management**
 - **Nature of competition**
 - **Company size**
 - **Respective products**

Hard Issues to Consider in Business Valuation Engagements

- **Market Approach**
 - **Public company data
(Comparability)**
 - **Ratio of net earnings and other ratios**
 - **Dividend paying capacity**
 - **Book value**

Hard Issues to Consider in Business Valuation Engagements

- **Market Approach**
 - **Position in the industry**
 - **Public company data (Comparability)**
 - **Review analysis for skewness**
 - **Review analysis for kurtosis**

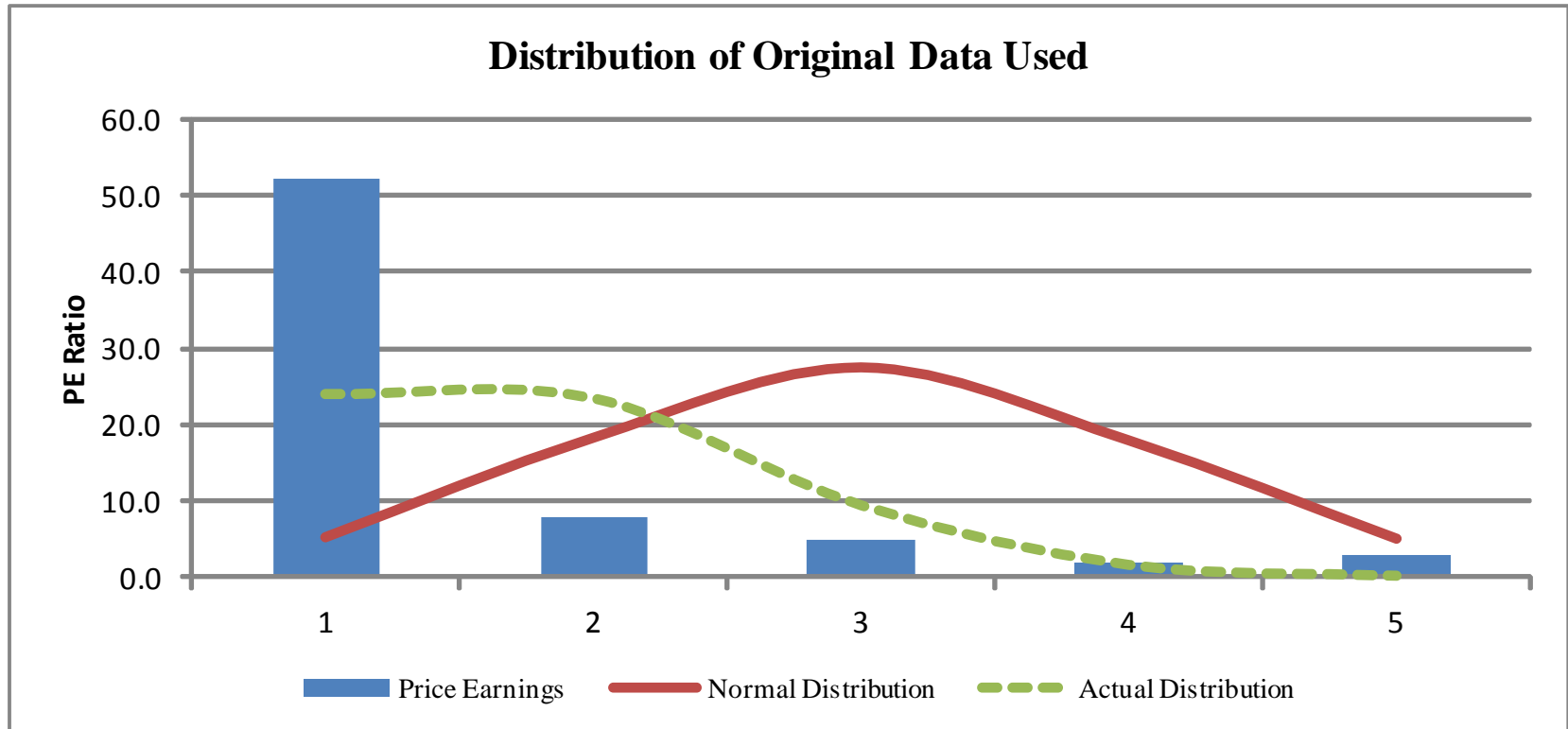
Hard Issues to Consider in Business Valuation Engagements

Comparability Factors		ATEC	HRC	IART	NUVA	PDEX	SYK	TSON	EXAC	MAKO	RTIX	SNN	WMGI	ZMH	OFIX	ARTC	BMET	BMET	ENMC	EYE	NAVB
Size	Sales	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	Yes
	Employees	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Entity Type	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Geographic Areas Served	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Growth	One Year Sales Growth Percentage	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	No
	Three Year Sales Growth Percentage	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	No
Liquidity	Current Ratio	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Quick Ratio	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Average Collection Period	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Profitability	Return On Total Assets	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Return On Equity	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Gross Profit	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Operating Profit	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Net Profit	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	EBITDA %	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Turnover	Accounts Receivable Turnover	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Inventory Turnover	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	No
	Fixed Asset Turnover	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No
	Total Asset Turnover	No	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Working Capital Turnover	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Leverage	Total Debt to Total Assets	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes
	Long-Term Debt to Equity	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Times Interest Earned	No	No	No	No	No	Yes	Yes	No	Yes	No	No	No	Yes	No	No	No	No	No	No	No
BME Attributes Not Comparable to Public Companies		17	18	19	18	18	17	17	17	18	18	18	17	16	19	17	15	18	16	15	17
BME Attributes Comparable to Public Companies		7	6	5	6	6	7	7	7	5	6	6	7	8	5	7	7	4	6	7	7
Percentage Comparable based on variance of plus or minus 50%		29.2%	25.0%	20.8%	25.0%	25.0%	29.2%	29.2%	29.2%	21.7%	25.0%	25.0%	29.2%	33.3%	20.8%	29.2%	31.8%	18.2%	27.3%	31.8%	29.2%

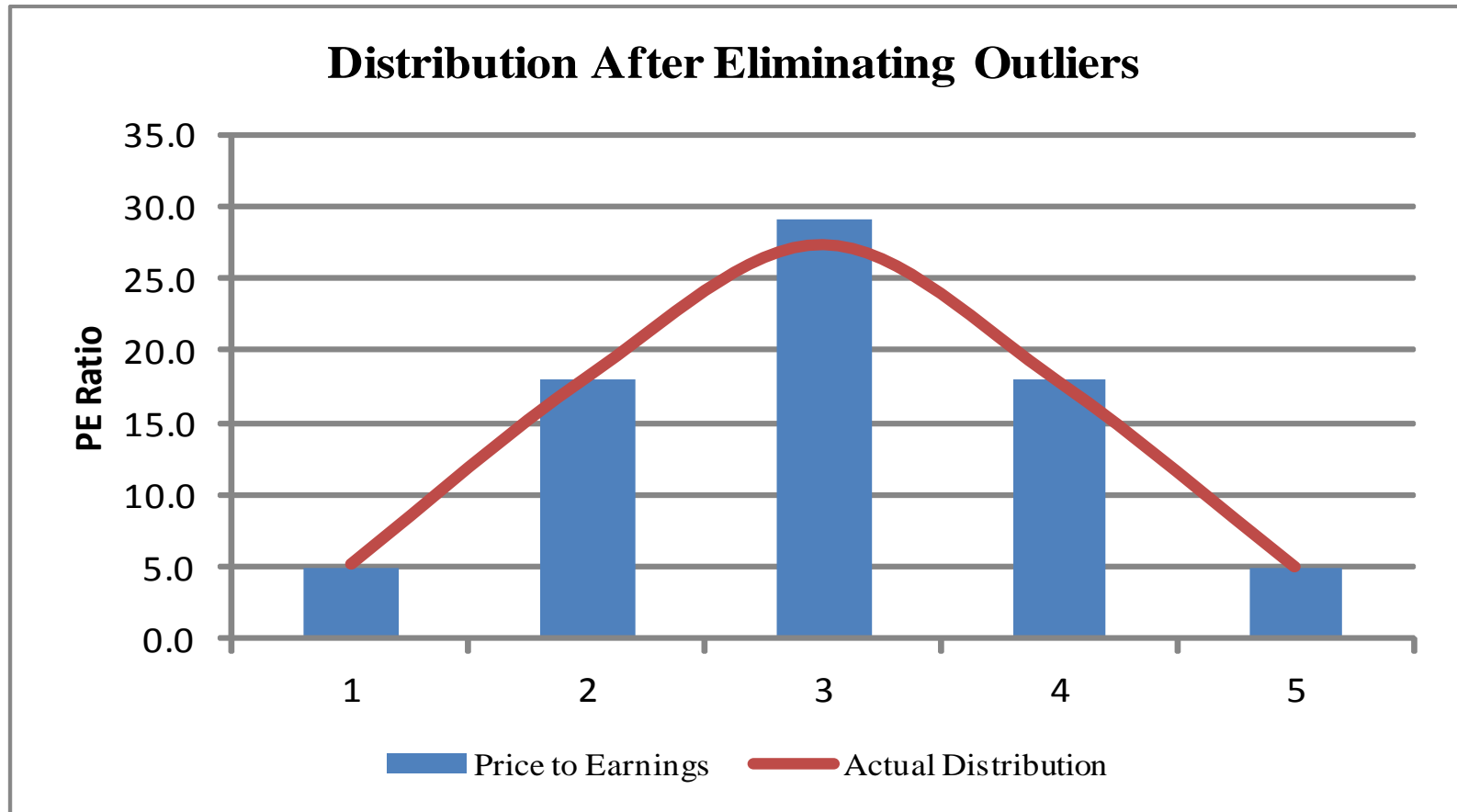
Hard Issues to Consider in Business Valuation Engagements

- **Market Approach – Private Transactions**
 - **Private company data**
 - **Identifying the appropriate SIC NAICS Code**
 - **Review analysis for skewness**
 - **Review analysis for kurtosis**

Hard Issues to Consider in Business Valuation Engagements



Hard Issues to Consider in Business Valuation Engagements



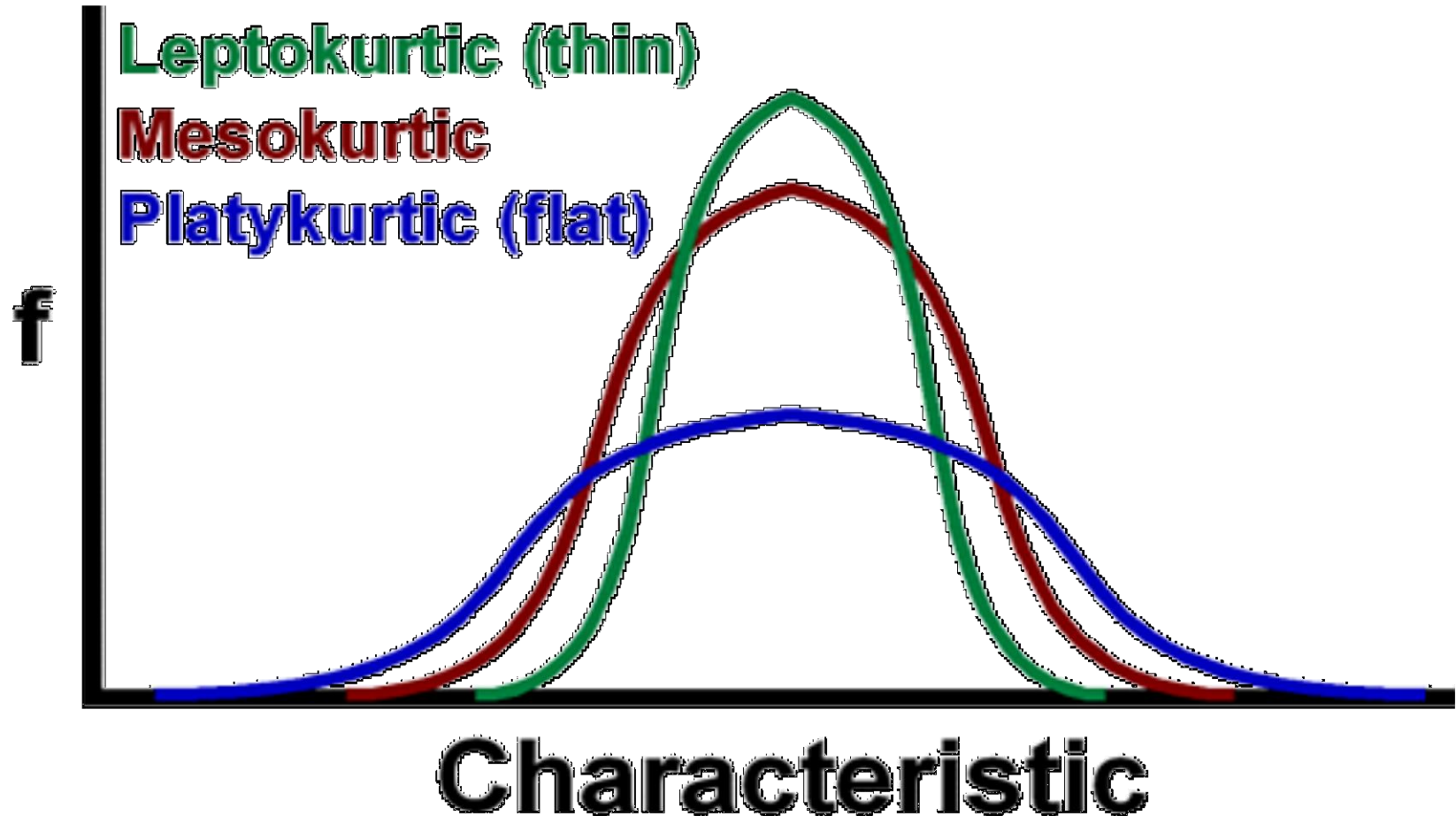
Hard Issues to Consider in Business Valuation Engagements

- **Market Approach – Private Transactions**
 - **Can calculate the percentage of improvement over using the average of median of original data**
 - **Test of 2 means**

Hard Issues to Consider in Business Valuation Engagements

- **Market Approach – Private Transactions**
 - **Review for kurtosis**

Hard Issues to Consider in Business Valuation Engagements



Hard Issues to Consider in Business Valuation Engagements

- **Market Approach – Private Transactions**
 - **Review for kurtosis**
 - **Eliminate outliers to eliminate kurtosis**
 - **Back transformations**

Hard Issues to Consider in Business Valuation Engagements

Normal Price to Revenues and Earnings to Revenues Analysis					Transformed Price to Revenues and Earnings to Revenues Analysis						
\hat{y} Predicted Value	$y - \hat{y}$ Sum of Residuals	$(y - \hat{y})^2$ Residuals Squared	X^2 Earnings Squared	Standardized Residuals	-0.307513863 Transformed Earnings /Revenues (X)	0.437810564 Transformed Sales Price / Revenues (Y)	Predicted Sales Price (Y)	Residuals	(Z Score) Standardized Residuals	$(y - \hat{y})^2$ Residuals Squared	If "X" Delete Exceeds 2.5 Standard Deviations
89562.26852	(7,562.2685)	57,187,905.2062	2,500,000,000	(0.4236)	1.5433	0.6695	92,859.7485	(10,859.7485)	(0.5517)	117,934,137.7198	
53897.54096	(11,897.5410)	141,551,480.9311	1,089,000,000	(0.6665)	1.8594	0.4596	44,194.9746	(2,194.9746)	(0.1115)	4,817,913.4841	
101801.2577	10,198.7423	104,014,344.0331	3,364,000,000	0.5713	1.6281	0.6664	103,351.7921	8,648.2079	0.4393	74,791,499.5479	
162469.4037	22,530.5963	507,627,769.6397	7,921,000,000	1.2622	1.4516	0.8104	167,423.8023	17,576.1977	0.8929	308,922,724.3965	
148409.681	(22,409.6810)	502,193,802.6502	6,889,000,000	(1.2554)	1.5512	0.6426	153,744.0191	(27,744.0191)	(1.4094)	769,730,594.7180	
225480.2595	(5,480.2595)	30,033,244.3393	14,884,000,000	(0.3070)	1.3828	0.8161	227,032.7229	(7,032.7229)	(0.3573)	49,459,191.7300	
156926.4333	22,073.5667	487,242,347.6976	7,744,000,000	1.2365	1.5630	0.7226	162,294.3541	16,705.6459	0.8487	279,078,605.7831	
136978.5184	23,021.4816	529,988,615.4648	6,084,000,000	1.2897	1.6260	0.6855	139,182.3539	20,817.6461	1.0576	433,374,390.9823	
147846.2679	(2,846.2679)	8,101,240.7636	7,056,000,000	(0.1594)	1.6172	0.6406	150,733.1770	(5,733.1770)	(0.2913)	32,869,318.7937	
86345.43322	19,654.5668	386,301,995.2253	2,809,000,000	1.1010	1.8661	0.5573	70,070.9452	35,929.0548	1.8252	1,290,896,975.9047	
147614.9655	(9,614.9655)	92,447,560.7648	7,056,000,000	(0.5386)	1.6234	0.6235	150,146.6248	(12,146.6248)	(0.6171)	147,540,495.2444	
109515.0071	(16,515.0071)	272,745,459.4233	4,225,000,000	(0.9252)	1.7697	0.5190	100,601.4589	(7,601.4589)	(0.3862)	57,782,178.0074	
252641.3458	(19,641.3458)	385,782,466.4440	19,044,000,000	(1.1003)	1.4364	0.7511	259,364.0266	(26,364.0266)	(1.3393)	695,061,899.4713	
	1511.61742	3,505,218,232.5829	90,665,000,000	0.0847				(0.0002)	(0.0000)	4,262,259,925.7831	

Normal Price to Revenues and Earnings to Revenues Analysis	
Mean of Residuals	116.2783
SEE - Standard Error of the Estimate	17850.94404
R ² (Selling Price and Transformed \hat{y} Predicted Value)	0.905709474
Coefficient Of Variation	12.74%

Transformed Price to Revenues and Earnings to Revenues Analysis	
Mean of Residuals	(0.0000)
SEE - Standard Error of the Estimate	19,684.4653
R ² (Selling Price and Transformed \hat{y} Predicted Value)	0.9008
Coefficient Of Variation	14.05%

Indicated Value - Normal Price to Revenues and Earnings to Revenues	
Revenues	42,262,526
Earnings	14,608,081
\hat{y} Predicted Value Based on Normal Trend	27,346,356
Indicated Value	27,346,000

Indicated Value - Transformed Price to Revenues and Earnings to Revenues	
Revenues	42,262,526
Earnings	14,608,081
\hat{y} Predicted Value Based on Transformed Trend	25,920,770
Indicated Value	25,921,000

Hard Issues to Consider in Business Valuation Engagements

- **Income Approach**
 - **Capitalized Earnings / Cash Flow**

- **Discount / Capitalization Rate**
 - **Build Up Model**
 - **Capital Asset Pricing Model**
 - **Weighted Average Cost of Capital**
 - **Risk Rate Component Model**
 - **Long-Term Sustainable Growth**

Hard Issues to Consider in Business Valuation Engagements

- **Adjusted Net Assets**
 - **Adjust Assets to Fair Market Value**
 - **Adjust Liabilities to Fair Market Value**

Hard Issues to Consider in Business Valuation Engagements

- **Marketability Discount**
 - **Should be based on attributes of the company, not just prior studies**
- **Minority Interest Discount**
- **Reconciliation of Methods**

Hard Issues to Consider in Business Valuation Engagements

- **To set the stage for an overall discussion of valuation reviews we will go through several quick examples of flaws and show you how simple it is to use basic knowledge about business valuations to find what is wrong**
- **Income Approach**
- **Market Approach**
- **Cost Approach**

Income Approach Example

- **There are two methods within the income approach**
 - **Capitalization of Earnings or Cash Flows**
 - **Discounted Future Earnings or Cash Flows**

Two Methods of Income Approach Example²⁷

- **Capitalization of Earnings or Cash Flows**
 - **“Single Period method where annual measure is divided by a capitalization rate to give an estimate of value.**
- **Instead of forecasting year by year income (as with discounted future income / cash flow), if income is expected to grow at a more or less constant rate, can be simplified to using a capitalization rate.**

Two Methods of Income Approach Example

Discounted Earnings / Cash Flows

- **Income projected / forecasted year by year and brought back to present value today at a discount rate, a rate or return for risk**

Capitalization of Earnings / Cash Flow

Is the Capitalization Rate Reasonable?

- **Formula for the Capitalization of Income / Cash Flow Method**
- **Value = $\frac{\text{Income Stream, Next Year}}{\text{Capitalization rate}}$**

Capitalization of Earnings / Cash Flow

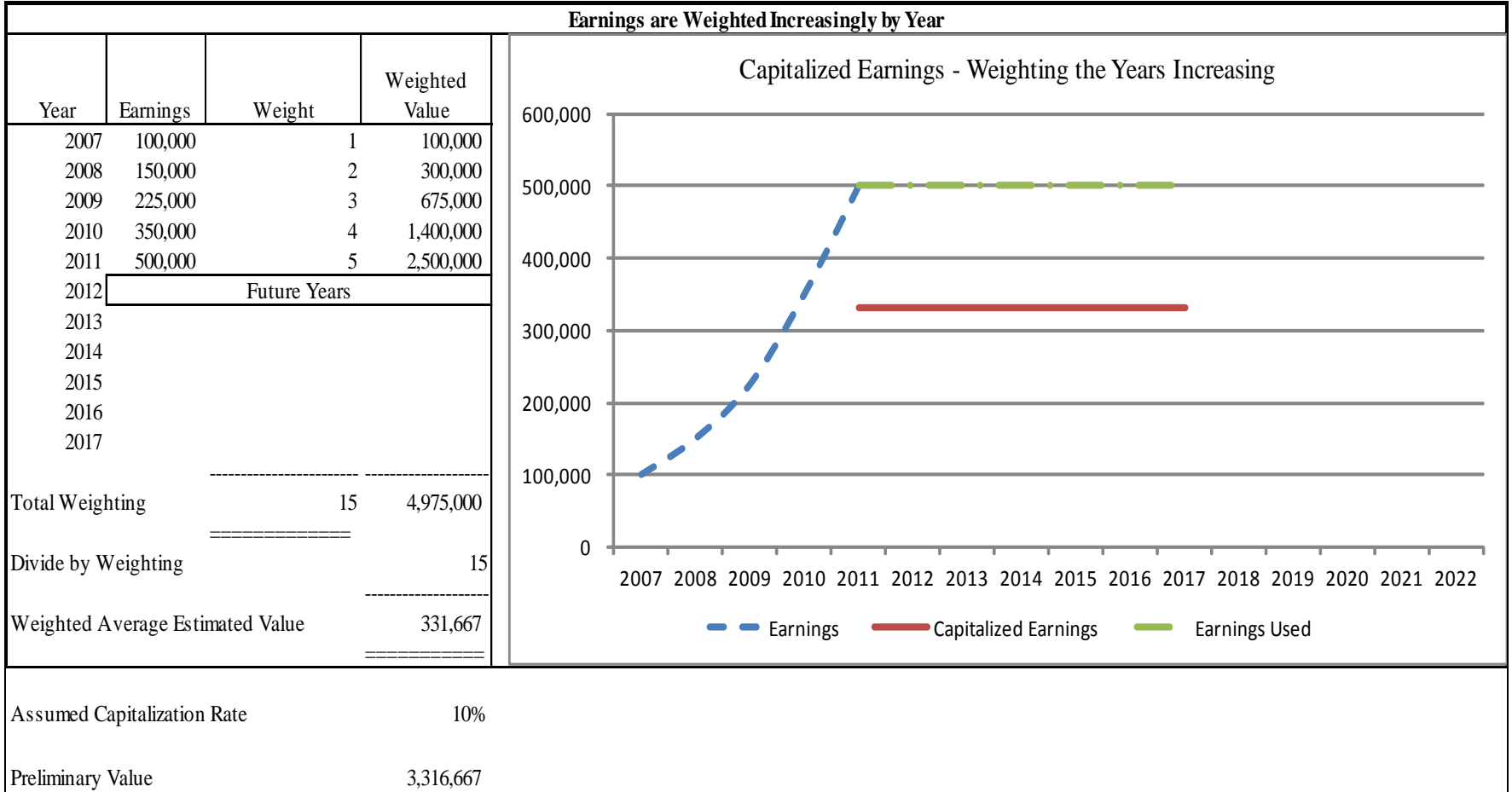
Is the Capitalization Rate Reasonable?

- **A Business Valuation has been performed using the capitalization of earnings method. Your job is to decide if the business valuation seems reasonable .**

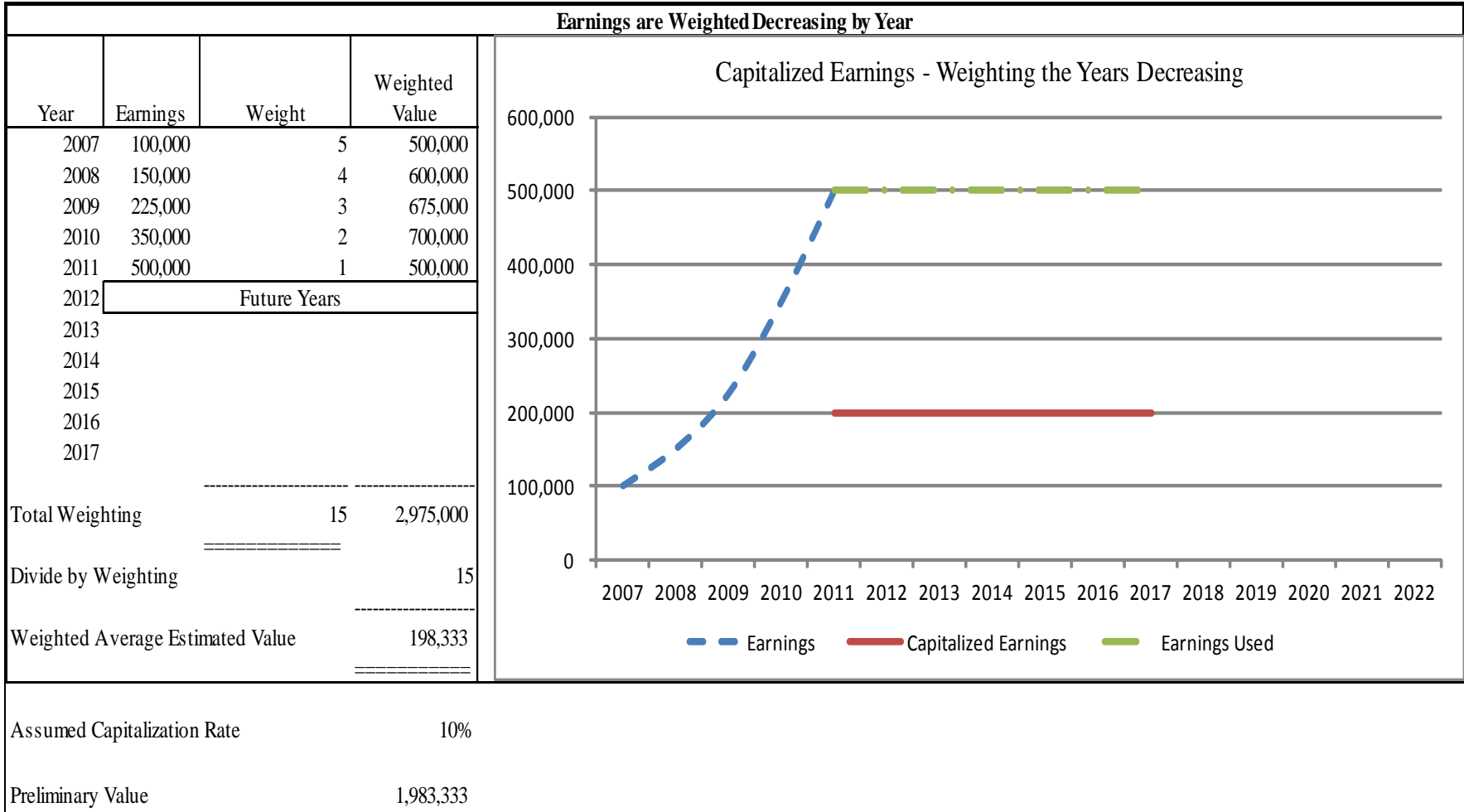
Are the Earnings to be Capitalized

Year	Earnings	Weight	Weighted Value	Percentage Change	Change In Percentage
2010	100,000	1	100,000		
2011	150,000	2	300,000	50.0%	
2012	225,000	3	675,000	50.0%	0.0%
2013	350,000	4	1,400,000	55.6%	11.1%
2014	500,000	5	2,500,000	42.9%	-22.9%
2015			0		
2016			0		
2017			0		
2018			0		
2019			0		
2020			0		
Total Weighting		15	4,975,000		
Divide by Weighting					15
Weighted Average Estimated Value			331,667		

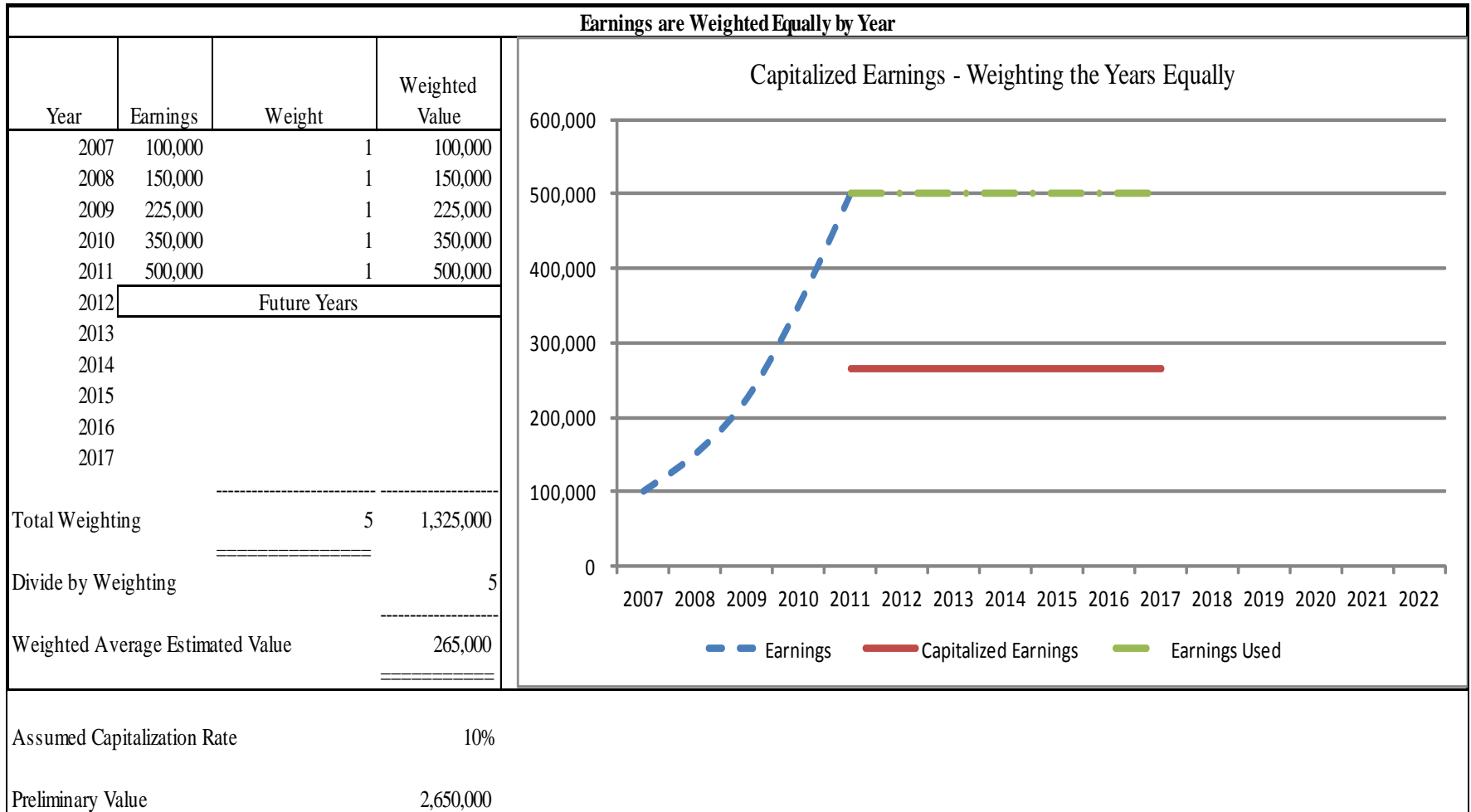
Are the Earnings to be Capitalized Stabilized?



Are the Earnings to be Capitalized Stabilized?



Are the Earnings to be Capitalized Stabilized?



Is the Capitalization Rate Reasonable?

Preliminary Values		
Method	Value	Payback in Years
Earnings are Weighted Increasingly by Year	3,316,667	10
Earnings are Weighted Decreasing by Year	1,983,333	10
Earnings are Weighted Equally by Year	2,650,000	10

Is the Capitalization Rate Reasonable?

- **Is anything wrong with the Capitalization rate**
- **Begin by understanding what makes up the capitalization rate and breaking it down into its components**
- **This provides the clues**

Is the Capitalization Rate Reasonable?

Build Up Method: Source - Morningstar Duff and Phelps Valuation Handbook

Risk-Free Rate	2.60%	K-T 20 Year US Treasury
Equity Risk Premium	6.07%	Large Company Stock Returns Less Govt Bond Returns
Size Premium	5.60%	10th Decile
Company Specific Risk	2.00%	Valuator's judgment

Discount Rate	16.27%	
Less: Long-term Sustainable Growth	6.00%	

Capitalization Rate	10.27%	
	=====	
Capitalization Rate (rounded)	10.00%	
	=====	

Is the Capitalization Rate Reasonable?

- **The capitalization rate is affected by risk (through the discount rate) and growth**
- **The higher the discount / capitalization rate, the LOWER the value**
- **The lower the discount / capitalization rate, the HIGHER the value.**

Is the Capitalization Rate Reasonable?

- **Focus first on the discount rate (rate of return for risk)**
- **Hard to argue with the industry data used by the expert.**

Is the Capitalization Rate Reasonable?

- **What about the company specific risk?**
- **Does the company specific risk capture the extra risk of the company?**
- **Small capitalized company would be approximately 15%**
- **Bottom line, the expert's company specific risk is too low**

Is the Capitalization Rate Reasonable?

- **Assume the company specific risk should be 6%**
- **What about the long-term sustainable growth?**

Is the Capitalization Rate Reasonable?

- **What about the long-term sustainable growth?**
- **Is the 6% expected future growth rate too high, too low, or just right?**
- **Inflation from 1929 to 2015 was 3.1% .**

Is the Capitalization Rate Reasonable?

Original and Corrected for Flaws in Risk and Growth

Build Up Method: Source - Morningstar Duff and Phelps Valuation Handbook		
Risk-Free Rate	2.60%	2.60% K-T 20 Year US Treasury
Equity Risk Premium	6.07%	6.07% Large Company Stock Returns Less Govt Bond Returns
Size Premium	5.60%	5.60% 10th Decile
Company Specific Risk	2.00%	8.00% Valuator's judgment
	-----	-----
Discount Rate	16.27%	22.27%
Less: Long-term Sustainable Growth	6.00%	2.00%
	-----	-----
Capitalization Rate	10.27%	20.27%
	=====	=====
Capitalization Rate (rounded)	10.00%	20.00%
	=====	=====

Is the Capitalization Rate Reasonable?

What a Big Difference Just a Little Sound Thought

	Weighted Earnings	Weighted Value	Corrected at 20%	Difference
Earnings are Weighted Increasingly by Year	331,667	3,316,667	1,658,334	1,658,334
Earnings are Weighted Decreasing by Year	198,333	1,983,333	991,667	991,667
Earnings are Weighted Equally by Year	265,000	2,650,000	1,325,000	1,325,000

Difference is the amount over valued

Is the Capitalization Rate Reasonable?

- **A company with high growth or low growth is a situation best suited to the discounted future earnings / cash flows method, where the year by year forecast is taken into account**

Discounted Future Earnings / Cash Flow Method

- **Method used when historical earnings / cash flows are not stabilized**
- **Method best captures value when a company is expected to have very high growth rates over the next few years, then slow to a more mature rate of increase**
- **It is widely used by acquirers**

Discounted Future Earnings / Cash Flow Method

- **How do you review?**
- **Test every revenue and expense assumption**

Discounted Future Earnings / Cash Flow Method

- **Test projection / forecast in light of**
 - **Actual historical experience**
 - **Commonsense about what you think might drive the business**
 - **How others in the industry perform**

Discounted Future Earnings / Cash Flow

An Example

- **We will look at a spreadsheet for a Discounted Cash Flow**
- **Examine the simplicity of how the Discounted Cash Flow works**
- **Critique the Discounted Cash Flow and its assumptions and findings using common sense**

Discounted Future Earnings / Cash Flow

An Example

- **I will tell you the changes to be made and see how they impact value**

Discounted Cash Flow

Projected Discounted Cash Flows	Base Year 2009	2010	2011	2012	2013	2014	Terminal Value
Net Revenues	24,124,811	20,717,282	30,800,000 48.7%	47,250,000 53.4%	62,790,000 32.9%	83,401,500 32.8%	
Adjusted Pre-Tax Income		1,083,728	1,325,305	3,585,931	5,561,814	8,483,515	
Pre-Tax Profit Margin			4.3%	7.6%	8.9%	10.2%	
Income Tax	37.5%	(406,398)	(496,989)	(1,344,724)	(2,085,680)	(3,181,318)	
After Tax Income		677,330	828,316	2,241,207	3,476,134	5,302,197	
Net Profit Margin (for full years)			2.7%	4.7%	5.5%	6.4%	
Add Depreciation and Amortization		197,284	299,609	330,645	385,040	431,155	
Gross Cash Flow		874,614	1,127,925	2,571,852	3,861,174	5,733,352	
Interest Expense		201,686	192,500	295,313	353,194	417,008	
Debt Free Working Capital Requirements (7% of annual sales-rounded)		(128,000)	(283,000)	(1,152,000)	(1,088,000)	(1,443,000)	
Capital Expenditures		(200,000)	(200,000)	(1,750,000)	(1,000,000)	(200,000)	
Net Cash Flows to Invested Capital		748,300	837,425	(34,835)	2,126,368	4,507,360	
Discount Term (mid-Term Convention)		0.375	1.25	2.25	3.25	4.25	5.25
Number of years of projected net income	5						
Net Cash Flow Discount Rate	22.19%						
Present Value Factor		0.9276	0.7784	0.6370	0.5214	0.4267	0.3492
Present Value of Discounted Net Operating Cash Flow to Equity (rounded)		694,000	652,000	(22,000)	1,109,000	1,923,000	4,507,360
Final Year Value							4,507,360
Long-Term Growth Rate							5.0%
Terminal Value							4,732,728
Capitalization Rate							17.2%
Capitalized Value							27,531,867
Present Value Factor							0.3492
Present Value of Terminal Value							9,614,000
Total of Net Present Values		13,970,000					
Debt as of the Valuation Date		(4,700,931)					
Value of 100% of Equity		9,269,069					

Terminal Value based on long-term sustainable growth

Common error in terminal value calculation(n+1)

Value based on terminal year not being stabilized

Discounted Cash Flow

	Base Year 2009	2010	2011	2012	2013	2014	Terminal Value
Projected Discounted Cash Flows							
Net Revenues	24,124,811	20,717,282	30,800,000	47,250,000	62,790,000	83,401,500	87,571,575
			48.7%	53.4%	32.9%	32.8%	
Adjusted Pre-Tax Income		1,083,728	1,325,305	3,585,931	5,561,814	8,483,515	8,907,691
Pre-Tax Profit Margin			4.3%	7.6%	8.9%	10.2%	10.2%
Income Tax	37.5%	(406,398)	(496,989)	(1,344,724)	(2,085,680)	(3,181,318)	(3,340,384)
After Tax Income		677,330	828,316	2,241,207	3,476,134	5,302,197	5,567,307
Net Profit Margin (for full years)			2.7%	4.7%	5.5%	6.4%	6.4%
Add Depreciation and Amortization		197,284	299,609	330,645	385,040	431,155	452,713
Gross Cash Flow		874,614	1,127,925	2,571,852	3,861,174	5,733,352	6,020,019
Interest Expense		201,686	192,500	295,313	353,194	417,008	437,858
Debt Free Working Capital Requirements (7% of annual sales-rounded)		(128,000)	(706,000)	(1,152,000)	(1,088,000)	(1,443,000)	(208,504)
Capital Expenditures		(200,000)	(200,000)	(1,750,000)	(1,000,000)	(200,000)	(210,000)
Net Cash Flows to Invested Capital		748,300	414,425	(34,835)	2,126,368	4,507,360	6,039,374
Discount Term (mid-Term Convention)		0.375	1.25	2.25	3.25	4.25	5.25
Number of years of projected net income	5						
Net Cash Flow Discount Rate	22.19%						
Present Value Factor		0.9276	0.7784	0.6370	0.5214	0.4267	
Present Value of Discounted Net Operating Cash Flow to Equity (rounded)		694,000	323,000	(22,000)	1,109,000	1,923,000	
Long-Term Growth Rate							5.0%
Terminal Value							6,039,374
Capitalization Rate							17.2%
Capitalized Value							35,133,066
Present Value Factor							0.4267
Present Value of Terminal Value							14,991,000
Total of Net Present Values		19,018,000					
Debt as of the Valuation Date		(4,700,931)					
Value of 100% of Equity		14,317,069					

Notice change in final year

Change is working capital should be based on NET changes in working capital, NOT based on a percentage of changes in revenues.

Based on long-term sustainable growth

Value based on terminal year being stabilized

Discounted Cash Flow

Projected Discounted Cash Flows	Base Year 2009	2010	2011	2012	2013	2014	Terminal
Net Revenues	24,124,811	20,717,282	30,800,000	47,250,000	62,790,000	83,401,500	87,571,575
			48.7%	53.4%	32.9%	32.8%	
Adjusted Pre-Tax Income		1,083,728	1,325,305	3,585,931	5,561,814	8,483,515	8,907,691
Pre-Tax Profit Margin			4.3%	7.6%	8.9%	10.2%	10.2%
Income Tax	37.5%	(406,398)	(496,989)	(1,344,724)	(2,085,680)	(3,181,318)	(3,340,384)
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Net Profit Margin (for full years)			2.7%	4.7%	5.5%	6.4%	6.4%
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Interest Expense		201,686	192,500	295,313	353,194	417,008	437,858
Debt Free Working Capital Requirements (7% of annual sales-rounded)		(128,000)	(706,000)	(1,152,000)	(1,088,000)	(1,443,000)	(208,504)
Capital Expenditures		(200,000)	(200,000)	(1,750,000)	(1,000,000)	(200,000)	(210,000)
Net Cash Flows to Invested Capital		748,300	414,425	(34,835)	2,126,368	4,507,360	6,039,374
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Capitalized Value							35,133,066
Present Value Factor							0.4267
Present Value of Terminal Value							14,991,000
Total of Net Present Values		19,018,000					
Debt as of the Valuation Date		(4,700,931)					
Value of 100% of Equity		14,317,069					

Depreciation expense CANNOT exceed Capital Expenditures in the Terminal year.

Discounted Cash Flow

Working Capital Metric Calculation	2007	2008	2009	2010	2011
Working Capital Metric Calculation					
Revenues	2,000,000	2,400,000	2,150,000	2,475,000	2,825,000
Working Capital - Including Cash	395,944	630,056	715,623	922,380	1,168,517
Working Capital to Revenues	0.20	0.26	0.33	0.37	0.41
Working Capital - Excluding Cash	128,972	177,472	157,944	179,644	180,719
Working Capital Excluding Cash to Revenues	0.06	0.07	0.07	0.07	0.06
Working Capital Needs Analysis	<div style="border: 1px solid black; padding: 5px; color: red; text-align: center;"> Working capital analysis INCLUDING cash - Accounting Concept </div>				
Projected Revenues					2,825,000
Growth	5.0%				
Projected Revenues	<div style="border: 1px solid black; padding: 5px; color: blue; text-align: center;"> Working capital analysis EXCLUDING cash - Valuation/Appraisal concept </div>				2,966,250
Times Working Capital Percentage					0.41
Estimated Working Needs	1,226,943				
Projected Revenues	<div style="border: 1px solid black; padding: 5px; color: blue; text-align: center;"> Working capital analysis EXCLUDING cash - Valuation/Appraisal concept </div>				2,966,250
Times Working Capital Percentage					0.06
Estimated Working Needs	189,755				
This is for demonstration purposes only. The remainder of the analysis has not been completed.					

Speaker Biography

J. Richard Claywell

CPA, ABV, ASA, CBA, CVA, CM&AA, CFD, MAFF, ABAR, CMEA

- Certified Public Accountant, Accredited in Business Valuations, Accredited Senior Appraiser, Certified Business Appraiser, Certified Valuation Analyst, Certified Mergers and Acquisitions, Advisor, Certified in Fraud Deterrence, Master Analyst in Financial Forensics, Accredited in Business Appraisal Review, Certified Machinery and Equipment Appraiser

Richard is **one of approximately 20 professionals** that holds all four business valuations from the recognized business valuation organizations in the US.

- Richard's practice is **limited to valuing closely held businesses, litigation support, economic damages, and exit planning.**

Richard has been working in the area of **business valuations** and exit planning since **1985** and has prepared **over nine hundred** valuations reports.

J. Richard Claywell

CPA, ABV, ASA, CBA, CVA, CM&AA, CFD, MAFF, ABAR, CMEA

- Richard is on the **Board of Directors** and is the **Director of Education** for the International Association of Consultants, Valuators and Advisors. He is responsible for all **global educational materials** related to business valuations. The International Association of Consultants, Valuators and Analysts (IACVA), is a 10,000 member organization with business valuation designation-granting authority in 55 countries.
- Richard wrote a chapter for the **Guide to International Valuation Handbook on Valuing Oil and Gas Interests and Developing Discount and Capitalization Rates.**

Richard taught a two day course on valuing intangibles in Beijing China in November 2008 a presentation on Financial Fraud at the Taipei World Valuation Conference in Taiwan Taipei in November 2009 and a two day merger and acquisition and one-half day course on financial fraud course at the Shanghai University of Finance and Economics in September 2010.

J. Richard Claywell

CPA, ABV, ASA, CBA, CVA, CM&AA, CFD, MAFF, ABAR, CMEA

- Richard spoke at the **2012 Forensic Accounting Conference - The Risk Assessment and Prevention of Fraud in Business** at the National Taipei University on April 27, 2012. The presentation was titled “The Meaning and Importance of Risk Assessment of and Prevention of Fraud in Businesses”.
- On April 29, 2012 Richard spoke at the Central University of Finance and Economics in Beijing China, presented a class titled “Relationships Between Risk and Value in Valuation” to graduate students.

On April 29, 2012, Richard accepted an appointment to **adjunct Professor of Valuation** at the Central University of Finance and Economics and Research Fellow of the Appraisal Institute, Asset Appraisal Institute of the Central University of Finance and Economics in Beijing China.

Richard was a **Contributing Editor** to **Practitioners Publishing Company (PPC) – Guide to Practical Estate Planning, 2008.**

J. Richard Claywell, CPA Disclaimer

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The image features the words "THANK YOU" in a large, 3D, light blue font. The letters are blocky and have a slight shadow, giving them a three-dimensional appearance. They are set against a black, slightly tilted rectangular background. The word "THANK" is on the top line, and "YOU" is on the bottom line, with the letters of "YOU" being significantly larger than those of "THANK".