

The Art & Science of Business Valuations

PRESENTED BY:

FRANK MERENDA, ASA, CVA, CMEA, BCA, MSCHE

PRESENTED TO:

VILLANOVA UNIVERSITY

BUSINESS SUCCESSION AND EXIT PLANNING INITIATIVE

EAC VALUATIONS LLC

101 WEST ELM STREET, SUITE 500

CONSHOHOCKEN, PA 19428

610-687-5855

EACVALUATIONS.COM



EAC Valuations LLC



Estate Settlement

103 Appraisals/Valuations

▶ Business

- ▶ LLCs
- ▶ LPs
- ▶ Public Stock
- ▶ Real Estate
 - ▶ Personal
 - ▶ Investment

▶ Property/Collectibles

- ▶ Antique Cars
- ▶ Original Art
- ▶ Autographed Instruments
- ▶ Collectibles
- ▶ Coins
- ▶ Historic Documents

Delaware Valley Food Franchise



- ▶ Purpose: Restructuring
 - ▶ Trademarks
 - ▶ Trade Names
 - ▶ Supply Contracts
 - ▶ Franchise Rights
 - ▶ Tangible Property



Start-Up Bio-Tech

- ▶ Pre-Revenue Bio-tech company
- ▶ Disease Treatment (Parkinson's Disease)
- ▶ Determine Value for Merger Discussion



Objectives

- ▶ What is a Business Valuation?
- ▶ Who performs a valuation? Why would a valuation be needed?
- ▶ How is Value Defined?
- ▶ Standard of value and Premise of value
- ▶ What methods are used to calculate value?
- ▶ Asset approach
 - ▶ Income approach
 - ▶ Market approach
- ▶ Discounts
- ▶ Reconciliation of Values
- ▶ Questions

What is a Business Valuation?



"The act or process of determining the value of a business enterprise or ownership interest therein."

-- International Glossary of Business Valuation Terms

Who Performs a Business Valuation?



- ▶ Generally performed by certified valuator from the following organizations:
 - ▶ National Association of Certified Valuation Analysts (CVA)
 - ▶ American Institute of Certified Public Accountants (ABV)
 - ▶ American Society of Appraisers (ASA)
 - ▶ International Society of Business Analysts (BCA)
- ▶ Proper valuations should follow organizational standards:
 - ▶ AICPA issued SSVS-1 for Business Valuation Standards effective 08/01/2015
 - ▶ NACVA Professional Standards Equivalent to AICPA
 - ▶ Uniform Standards of Professional Appraisal Practice
 - ▶ FIRREA recognizes USPAP as the generally accepted appraisal standards



IRS View of Business Valuation

- ▶ IRC 170(f)(11)(E)(i)—Qualified Appraisal
 - ▶ As per regulations and other guidance prescribed by the IRS
 - ▶ Conducted by a qualified appraiser
- ▶ IRC 170(f)(11)(E)(ii)—Qualified Appraiser
 - ▶ Earned an appraisal designation from a recognized professional organization
 - ▶ Meets minimum education and experience requirements prescribed by the IRS
 - ▶ Regularly performs appraisals for which the individual receives compensation
- ▶ IRC 170(f)(11)(E)(iii)—Property Qualification
 - ▶ Appraiser must demonstrate verifiable education and experience
 - ▶ Appraiser has not been prohibited from practicing before the IRS for 3 years
- ▶ Pension Protection Act of 2006
 - ▶ IRC 6695A—Significant Penalties for Appraisers

Why is a Business Valuation needed?



- ▶ Tax (Fair Market Value) Purposes:
 - ▶ Ownership disputes
 - ▶ Business Planning
 - ▶ Estate and Gift Tax
 - ▶ Marital/Business dissolution
 - ▶ Family Limited Partnerships
 - ▶ Deferred/Incentive Compensation
 - ▶ Reorganization and bankruptcies
 - ▶ Financing
 - ▶ Mergers and Acquisitions



What is required documentation?

- ▶ 3 to 5 years Federal Business Tax Returns (1120/1065)
- ▶ Balance Sheet as of Valuation Date
- ▶ Income/Cash Flow Statements YTD to Valuation Date
- ▶ Stockholder/Member Agreements
- ▶ Lease Agreements
- ▶ Real Estate Appraisal (if real estate owned)
- ▶ Machinery & Equipment Appraisal (if necessary)
- ▶ Business Plan (optional)



What is Typical Process?

- ▶ Introductory Meeting/Call
- ▶ Proposal/Letter of Engagement
- ▶ Executed Letter of Engagement—Payment Due
- ▶ Request for Documentation
- ▶ Site Visit
 - ▶ Inspection of Facilities
 - ▶ Discussions with Key Personnel
- ▶ Draft Report Prepared
- ▶ Review with Client and Advisors
- ▶ Final Report Issued



Why is a Business Valuation needed (GAAP)?

- ▶ GAAP (Fair Value) Purposes:
 - ▶ ASC 718 - Stock Compensation (Formerly FAS 123R)
 - ▶ ASC 805 - Purchase Price Allocation
 - ▶ Determines Fair Value of:
 - ▶ Goodwill
 - ▶ Intangible Assets
 - ▶ Tangible Assets
 - ▶ ASC 350 – Goodwill/Indefinite Life Intangible Asset Impairment
 - ▶ ASC 360 – Definite Life Asset Impairment
 - ▶ Fresh Start Accounting
 - ▶ Financial Instruments
 - ▶ Determines Fair Value of:
 - ▶ Derivative Assets or Liabilities
 - ▶ Synthetic Equity Positions (Management Carve-Outs or Stock Appreciation Rights)
 - ▶ Deferred/Incentive Compensation



How is value calculated?

- ▶ Value is determined by purpose
- ▶ Once purpose is defined a professional will identify the following:

▶ **Standard of Value**

- ▶ Fair Market Value
- ▶ Fair Value (ASC 820)
- ▶ Fair Value (Statutory)
- ▶ Investment Value

▶ **Premise of Value**

- ▶ Going Concern
- ▶ Liquidation
 - ▶ Controlled
 - ▶ Severed
 - ▶ In-Place



Standard of Value

- ▶ Value has no meaning until it is defined by standard of value
- ▶ Must be defined in every valuation
- ▶ In some instances, standard is mandated by statute or regulations
 - ▶ Internal Revenue Code (IRC) – Estate/Gift, Deferred Comp (FMV)
 - ▶ Statute – Dissent and Oppression/Shareholder Dispute (ASC 820 Fair Value)
 - ▶ Litigation – Divorce, Business Dissolution (Fair Value-Statutory)
 - ▶ US GAAP – Financial Reporting Impairment, Public Company Disputes (ASC 820 Fair Value)

Fair Market Value Defined



“The price at which the property would change hands between a willing buyer and a willing seller, when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of the facts.”

-- Revenue Ruling 59-60



Fair Market Value

- ▶ Standard of Value for all Federal Tax purposes
- ▶ RR 59-60 advised the following factors be considered:
 - ▶ Nature of business and the history of the enterprise
 - ▶ Economic outlook, macro and micro
 - ▶ Book value of the stock
 - ▶ Earning capacity
 - ▶ Dividend paying capacity
 - ▶ Whether or not the enterprise has goodwill or other intangible value
 - ▶ Previous sales of stock in the company
 - ▶ Market price of stocks of corporations in the same, or similar, line of business having their stocks actively traded in a free and open market

Fair Value Defined



“The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.”

-- Financial Accounting Standards Board, ASC 820

Fair Value



- ▶ Fair Value reported for:
 - ▶ Purchase Price Allocation
 - ▶ Goodwill Impairment
 - ▶ Other Financial Reporting (GAAP/IFRS)
 - ▶ Fresh Start Accounting
- ▶ Can represent Liquidation or Going Concern value



Fair Value--Statutory

- ▶ Often used in court cases to compensate a party for the involuntary use of an asset, such as eminent domain, where there is no reasonable assumption of a fair market value transaction.
- ▶ Typically, no discounts for lack or marketability or control
- ▶ Often same methodologies used as Fair Market Value
- ▶ Many states have specific, varying, definitions (Pennsylvania does not)

Investment Value Defined



"The value to a particular investor based on individual investment requirements and expectations."

-- International Glossary of Business Valuation Terms



Investment Value

- ▶ Higher than Fair Market Value or Fair Value
- ▶ Buyer defined
- ▶ Value includes synergistic opportunities to buyer
 - ▶ A large generic Pharmaceutical company buying a micro-cap Pharmaceutical company for 3x their Market Capitalization



Premise of Value

- ▶ Further refine assumptions made under Standards of Value
- ▶ Should be defined in every valuation
- ▶ Two premises: Going Concern and Liquidation
- ▶ Liquidation Value could be higher than Going Concern Value
 - ▶ Example: Driving range could be worth more if land used in property development and sold in liquidation
 - ▶ Most relevant in 100% control valuation engagements
 - ▶ Three types of Liquidation Value: Orderly (used in FMV), Forced, or as an Assemblage of Assets (selling assets not in current use)
- ▶ Going Concern Value could be higher than Liquidation Value
 - ▶ Example: Accounting practice with little tangible assets

Going Concern Value Defined



“The value of a business enterprise that is expected to continue to operate into the future. The intangible elements of Going Concern Value result from factors such as having a trained work force, an operational plant, and the necessary licenses, systems, and procedures in place.”

-- International Glossary of Business Valuation Terms

Liquidation Value Defined



“The net amount that would be realized if the business is terminated and the assets are sold piecemeal. Liquidation can be either ‘orderly’ or ‘forced.’”

-- International Glossary of Business Valuation Terms

Business Valuation Methods



The following methods can be used in conjunction or separately to value an enterprise:

- ▶ **Asset Approach**

- ▶ Book value Method
- ▶ Adjusted Net Asset Method

- ▶ **Income Approach**

- ▶ Capitalization of Earnings
- ▶ Discounted Cash Flow
- ▶ Dividend Paying Capacity

- ▶ **Market Approach**

- ▶ Direct Market Data Method
- ▶ Public Guideline Companies



Business Valuation Example

- ▶ **Objective:** Value 10% ownership in Steel Widget Inc as of 9/1/2016
- ▶ In conversations with client, define the **Valuation Purpose:**
 - ▶ IRS Gift Tax
- ▶ The valuation purpose defines the **Standard of Value:**
 - ▶ Fair Market Value
- ▶ In conversations with client, define the **current state** of the business:
 - ▶ Business is going concern and producing positive cash flow with no foreseeable events to disrupt business activities
- ▶ The current state of the business defines the **Premise of Value:**
 - ▶ Going Concern Value
- ▶ Steel Widget's shareholder agreement, the standard and premise of value, and professional experience indicates the proper reported value should be:
 - ▶ **Non-Control, Non-Marketable, Voting**



Steel Widget Inc's Key Metrics

- ▶ Steel Widget has experienced varying success over the last five years
- ▶ The company has no current long-term debt
- ▶ Revenues and Income Flat over the analysis period
- ▶ Key financial metrics of the company are as follows:

| | |
|------------------------|--------------|
| 5-year average revenue | \$23,000,000 |
| 5-year average SDE | \$3,450,000 |
| Working Capital | \$300,000 |
| Equity Value (Book) | \$2,400,000 |
| Fixed Assets (Book) | \$2,100,000 |

Asset Approach Defined



"A general way of determining a value indication of a business, business ownership interest, or security using one or more methods based on the value of the assets net of liabilities."

-- International Glossary of Business Valuation Terms



Asset Approach

- ▶ Under going concern premise of value, this approach typically provides a 'floor' value
- ▶ Assets and liabilities are assigned fair market values as of the valuation date
- ▶ Best for businesses with large tangible asset base or generating losses
- ▶ For profitable operations, this method does not address earnings
- ▶ Equipment and Real Estate appraisals may be needed to ensure accuracy
- ▶ Yields a "Control, Non-Marketable" value

Asset Approach Example



| | Book Value 9/1/2016 | Adjustment | Adjusted Value |
|------------------------------|------------------------|-------------|--------------------|
| Total Current Assets | \$6,000,000 | (\$60,000) | \$5,940,000 |
| Total PP&E | \$2,100,000 | \$1,600,000 | \$3,700,000 |
| Total Assets | <u>\$8,100,000</u> | | <u>\$9,640,000</u> |
| Total Liabilities | <u>\$5,700,000</u> | | <u>\$5,700,000</u> |
| Net Assets | \$2,400,000 | | |
| Adjusted Net Tangible Assets | | | <u>\$4,000,000</u> |

Income Approach Defined



“A general way of determining a value indication of a business, business ownership interest, security, or intangible asset using one or more methods that convert anticipated economic benefits into a present single amount.”

-- International Glossary of Business Valuation Terms



Income Approach

- ▶ In the simplest terms the income approach calculates value as:
 - ▶ Benefit Stream divided by Risk
- ▶ Benefit Stream defined as:
 - ▶ Net Cash Flow to Equity or Net Cash Flow to Invested Capital
- ▶ Risk Defined as:
 - ▶ Cost of Equity or Weighted Average Cost of Capital (WACC)
- ▶ Two approaches:
 - ▶ Capitalization of Earnings – Linear earnings
 - ▶ Discounted Cash Flow – Non-linear earnings
- ▶ Can yield a “Control” or “Non-Control” value
- ▶ Yields a “Marketable” value



Benefit Streams & Risk

- ▶ Benefit Streams should be Adjusted
 - ▶ Adjustments dependent upon level of control in interest requested to be valued
- ▶ Net Cash Flow to Equity
 - ▶ *“Those cash flows available to pay out to equity holders (in the form of dividends) after funding operations of the business enterprise, making necessary capital investments, and increasing or decreasing debt financing.”*
-- *International Glossary of Business Valuation Terms*
 - ▶ Risk, discount rate, defined by Cost of Equity
- ▶ Net Cash Flow to Invested Capital
 - ▶ *“Those cash flows available to pay out to equity holders (in the form of dividends) and debt investors (in the form of principal and interest) after funding operations of the business enterprise and making necessary capital investments.”* -- *International Glossary of Business Valuation Terms*
 - ▶ Risk, discount rate, defined by Weighted Average Cost of Capital (WACC)

Benefit Streams



Adjusted Net Income
+ Depreciation & Amortization
- Capital Expenditures
+/- Change in Working Capital
+/- Changes in Long Term Debt
= Net Cash Flow to Equity

Adjusted Net Income
+ Depreciation & Amortization
- Capital Expenditures
+/- Change in Working Capital
+ Interest Expense (Less Tax Rate)
= Net Cash Flow to Invested Capital

Cost of Equity



- ▶ Calculated under Ibbotson Build-Up Method
 - ▶ Multiple alternative approaches have been documented

| | | |
|-----------------------------|------|--------------|
| Risk-Free Rate | | 1.9% |
| Equity Risk Premium | 6.9% | |
| x Industry Beta | 1.3 | |
| + Industry Adjusted Premium | | 9.0% |
| + Size Premium | | 5.6% |
| + Company Specific Risk | | 3.0% |
| = Cost of Equity | | 19.5% |



Weighted Average Cost of Capital

- ▶ Includes company's cost of debt
- ▶ Provides weighted required return to equity and debt holders

| | |
|-------------------------------|-------------|
| Cost of Debt | 5.00% |
| Tax Rate | 40.0% |
| After-tax Cost of Debt | 3.0% |

| | |
|-----------------------------|--------------|
| Risk-Free Rate | 1.9% |
| Equity Risk Premium | 6.9% |
| x Beta | 1.3 |
| + Industry Adjusted Premium | 9.0% |
| + Size Premium | 5.6% |
| + Company Specific Risk | 3.0% |
| = Cost of Equity | 19.5% |

| | |
|---------------------------------|---------------|
| Capitalization Structure | |
| Debt (Market Value) | 25% |
| Equity (Market Value) | 75% |
| WACC | 15.4 % |



Capitalization of Earnings Example

- ▶ Determine benefit stream, in this example we use Net Cash Flow to Equity
 - ▶ Weighted Average, Average or Last Fiscal Year

| | | |
|------------------|-------------|-----------------------|
| Average | \$3,000,000 | |
| Weighted Average | \$3,050,000 | No trend, use average |

- ▶ Define risk, utilize proper discount rate
 - ▶ Convert discount rate to capitalization rate by subtracting long term growth rate

| | | | |
|------------------------------------|---------------|---------------------|-------------|
| Less: LTG | 3.0% | x LTG | 3.00% |
| = Cap Rate | 16.50% | = NCFE | \$3,100,000 |
| Multiplier | <u>x 6.06</u> | | |
| 100% Equity Value (Rounded) | | \$18,800,000 | |

Market Approach Defined



“A general way of determining a value indication of a business, business ownership interest, security, or intangible asset by using one or more methods that compare the subject to similar businesses, business ownership interests, securities, or intangible assets that have been sold.”

-- International Glossary of Business Valuation Terms



Market Approach

- ▶ Similar concept as Income Approach
 - ▶ Benefit (Revenue, EBITDA, EBIT, Cash Flow)
 - ▶ Risk (P/Rev, P/EBITA, P/EBIT, P/CF)
- ▶ Two approaches:
 - ▶ Direct Market Data Method
 - ▶ Use past private company transactions as a multiple, which defines risk
 - ▶ Yields a “Control, Non-Marketable” or “Control, Marketable” value
 - ▶ Public Guideline Company Method
 - ▶ Use public guideline companies multiples, which defines risk
 - ▶ Can yield a “Control” or “Non-Control” value
 - ▶ Yields a “Marketable” value



Direct Market Data Method

- ▶ Identify past transactions of similar private companies
 - ▶ Sources of data: BIZCOMPS®, Institute of Business Appraisers (IBA), Pratt's Stats™, Done Deals™ & Mergerstat® with over 30,000 transactions combined
 - ▶ Search for companies in same SIC code(s) with similar parameters

| | Revenue | SDE | Selling Price | P/Rev | P/SDE |
|----------------|---------------------|--------------------|---------------------|-------------|-------------|
| Steel Maker | \$20,000,000 | \$1,450,000 | 9,000,000 | 0.45 | 6.21 |
| We R Steel | \$18,000,000 | \$2,200,000 | 12,500,000 | 0.69 | 5.68 |
| Steel Co | \$23,400,000 | \$3,500,000 | 13,200,000 | 0.56 | 3.77 |
| Average | \$20,500,000 | \$2,400,000 | \$11,600,000 | 0.57 | 5.22 |

- ▶ Apply to subject company's metrics (Weighted Average, Average or Last FY):

| | | | |
|--------------------------------------|---------------------|---------------|---------------------|
| Avg Revenue | \$23,000,000 | Avg SDE | \$3,450,000 |
| Multiple | <u>x 0.57</u> | Multiple | <u>x 5.22</u> |
| Value: | \$13,100,000 | Value: | \$18,000,000 |
| Average of Results (Rounded): | \$15,600,000 | | |



Public Guideline Method

- ▶ Same concept as Direct Market Data Method
 - ▶ Difference is in source of data
- ▶ Sources of data: Edgar, Alcara, Pitchbook, Compustat, Disclosure, Reuters, Mergent Company Data Direct, OneSource & Fetch XL
- ▶ Search for companies in same industries with similar parameters

| Ticker | Revenue | Market Cap | P/Rev |
|---------------|----------------------|----------------------|-------------|
| STL | \$200,000,000 | 500,000,000 | 2.50 |
| STE | \$580,000,000 | 1,045,000,000 | 1.80 |
| COO | \$43,400,000 | 256,000,000 | 5.90 |
| Median | \$200,000,000 | \$500,000,000 | 2.50 |

| | |
|-------------------------------------|---------------------|
| Avg Revenue | \$23,000,000 |
| Multiple | <u>x 2.50</u> |
| 100% Equity Value (Rounded): | \$57,500,000 |



Discounts

- ▶ Discount for Lack of Marketability (DLOM)
 - ▶ Utilized where analysis is based on marketable securities
 - ▶ Discounted as “risk” defined in approaches are sources from public data
 - ▶ Public company shareholders enjoy immediate liquidity
 - ▶ Main sources to quantify discount: Restricted Stock Studies & Pre-IPO studies
 - ▶ *Mandelbaum v Commissioner* defined factors to be considered in developing a DLOM
 - ▶ IRS Job Aid, published in 2009, offered valuers insight on IRS’ opinion of various DLOM methods. However, no definitive conclusion was given on appropriate methods.



Discounts

- ▶ Discount for Lack of Liquidity (DLOL)
 - ▶ Appropriate for Direct Market Data Analysis
 - ▶ Discount taken for Fees, Time to Realization of Funds
- ▶ Discount for Lack of Control (DLOC)
 - ▶ Can be quantified by cash flow adjustments
 - ▶ Optimal adjustments to cash flow if “Control” valuation (e.g. Excess Owner’s compensation)
 - ▶ Historically some valuers have made adjustments regardless and discounted for lack of control
- ▶ Discounts are multiplicative



Reconciliation of Methods

- ▶ Review results from applied methods
- ▶ Often a valuator will give weightings to various methods

| Method | Value | DLOM/C | Value | Weighting |
|-----------------------------------|--------------------|------------------------------------|--------------|-----------|
| Adjusted Net Assets | \$4,000,000 | N/A | \$4,000,000 | 0% |
| Capitalization of Earnings | \$18,800,000 | 30% | \$13,200,000 | 50% |
| Direct Market Data | \$15,600,000 | 7% | \$14,500,000 | 50% |
| Public Guideline | \$57,500,000 | 30% | \$40,250,000 | 0% |
| 100% Equity Value Conclusion: | \$13,900,000 | Control, Non-Marketable | | |
| 10% Equity Value (Rounded) | \$1,100,000 | Non-Control, Non-Marketable | | |



IRC 2704 (Proposed)

- ▶ Original October 9, 1990
- ▶ Revised August 2, 2016
- ▶ Primarily for Family Owned Businesses, LLCs and FLPs
- ▶ Limit Discounts for Lack of Control—2704(a)
 - ▶ If Controlling (Owner Transferor) to Multiple Transferees
 - ▶ Lapse of Voting or Liquidation Rights, but Control Maintained
 - ▶ Different for family or non-family members
 - ▶ Within 3 years of Transferor Death



IRC 2704 (Proposed)

- ▶ Limit Discounts for Lack of Marketability—2704(b)
 - ▶ If business interest is transferred within the family
 - ▶ Excess restrictions will be disallowed (state restrictions OK)
 - ▶ Family member owners are treated as one
 - ▶ Within 3 years of Transferor Death
- ▶ Effective Date
 - ▶ Relevant to those exposed to estate tax (>\$5.45M)
 - ▶ Public Hearing December 1, 2016
 - ▶ Estimated Effective in 2017 (may be retroactive to January 1)
 - ▶ Will be challenged in court



Questions?

EAC VALUATIONS LLC

101 WEST ELM STREET, SUITE 500
CONSHOHOCKEN, PA 19428

THOMAS H GUDOWICZ

TGUDOWICZ@EACVALUATIONS.COM
610-687-5855 X115

FRANK MERENDA, ASA, CVA, CMEA, BCA, MSCHE

FMERENDA@EACVALUATIONS.COM
610-687-5855 X114



APPENDIX

About EAC Valuations LLC



EAC Valuations LLC

Contact Info:

EAC Valuations LLC

www.eacvaluations.com

101 West Elm Street, Suite 500

Conshohocken, PA 19428

Frank Marcucci, Jr.

610-687-5855 x103

fmarcucci@eacvaluations.com

Frank L Merenda, CVA

610-687-5855 x114

fmerenda@eacvaluations.com

EAC Valuations has provided in-depth and trusted appraisals and valuation reports since 1971. Located 20 miles northwest of Philadelphia, near Valley Forge, our assignments have taken us around the world, and next-door. We have completed more than 13,000 appraisals for clients ranging from multi-national, multi-billion dollar Fortune 100 companies and financial institutions, to privately held local manufacturing and services companies.

Our highly qualified, certified and experienced appraisers can exceed expectations for a wide range of appraisal needs meeting IRS, FASB, IFRS, USPAP, and FIRREA requirements, encompassing appraisals of industrial and commercial real estate, machinery & equipment, intangible assets, and complete business enterprise valuations.



Mandelbaum Factors

- ▶ *Mandelbaum v Commissioner* defined factors to be considered:
 - ▶ (1) The value of the subject corporation's privately traded securities vis-a-vis its publicly traded securities (or, if the subject corporation does not have stock that is traded both publicly and privately, the cost of a similar corporation's public and private stock);
 - ▶ (2) an analysis of the subject corporation's financial statements;
 - ▶ (3) the corporation's dividend-paying capacity, its history of paying dividends, and the amount of its prior dividends;
 - ▶ (4) the nature of the corporation, its history, its position in the industry, and its economic outlook;
 - ▶ (5) the corporation's management;
 - ▶ (6) the degree of control transferred with the block of stock to be valued;
 - ▶ (7) any restriction on the transferability of the corporation's stock;
 - ▶ (8) the period of time for which an investor must hold the subject stock to realize a sufficient profit;
 - ▶ (9) the corporation's redemption policy; and
 - ▶ (10) the cost of effectuating a public offering of the stock to be valued, e.g., legal, accounting, and underwriting fees.



Empirical Data for DLOM

- ▶ **Restricted Stock Studies:** Analyze the differences in prices between publicly traded securities and those of restricted stocks of the same companies.
- ▶ **Pre-IPO Studies:** Analyze the relationship between the prices of companies whose shares were initially offered to the public (IPO) and the prices at which their shares traded privately within a five month period immediately preceding the public offering.
- ▶ **Costs of Flotation:** Quantifies marketability discount in terms of the costs required to achieve marketability, basically the cost of underwriting a public offering.
- ▶ **Securities Based Approach:** Based on theoretical option pricing models. They are based on the observed marketability differences between traded stock prices and option prices.
- ▶ **Other Alternatives:** QMDM, NICE, NERA, Partnership Profiles and MergerStat

DLOC OVERVIEW



- ▶ **Control:** Power to direct the management and policies of a business enterprise.
- ▶ **Control Premium:** Amount or percentage by which the pro rata value of a controlling interest exceeds the pro rata value of a noncontrolling interest in a business enterprise to reflect power of control.
 - ▶ **Data Source:** Mergerstat
 - ▶ Use of data strongly cautioned, premiums paid on acquisitions value of particular investor in specific investment.
 - ▶ More of a “Strategic” premium, not representative of Fair Market Value
 - ▶ Large dispersion in premiums paid
- ▶ **Control Adjustments:** Valuation adjustment to financial statements to reflect the effect of a controlling interest in a business. (e.g. Owners Compensation)
 - ▶ “By choosing to make certain adjustments to the future economic benefit, the analyst can develop a control or non-control value” – Financial Valuation Applications and Models, James Hitchner (2011)



Projects of Interest

- ▶ Tug Boats
- ▶ NYC Park Avenue Co-Op
- ▶ Turkey Farm
- ▶ Mushroom Farm
- ▶ Amniotic Sacs for Wound Healing
- ▶ Paul Allen Spaceship
- ▶ 500,000 chickens/day processing
- ▶ 1,000 cattle/day processing
- ▶ BUT, our most recent, exciting assignment was...



Drug Patent Valuations

- ▶ Incubator-funded Company
 - ▶ Cancer Drug
 - ▶ IP sale to third party
 - ▶ PE Investment Offers
- ▶ Orphan Drugs
 - ▶ Big Pharma Spinoff
 - ▶ Value for Payment
 - ▶ Residual Value to Investor
 - ▶ Avoid pissing off participants
- ▶ Weight Loss
 - ▶ FDA Approved patents
 - ▶ Basis for Potential Sale