



PROGRAM MATERIALS
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The Body & Soul of Business Valuation

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The Body & Soul of Businesses Valuation

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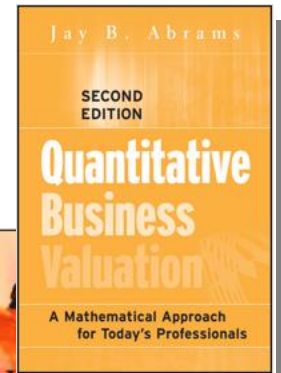
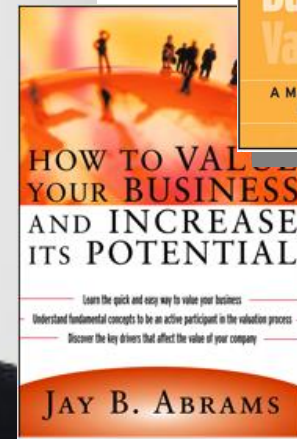
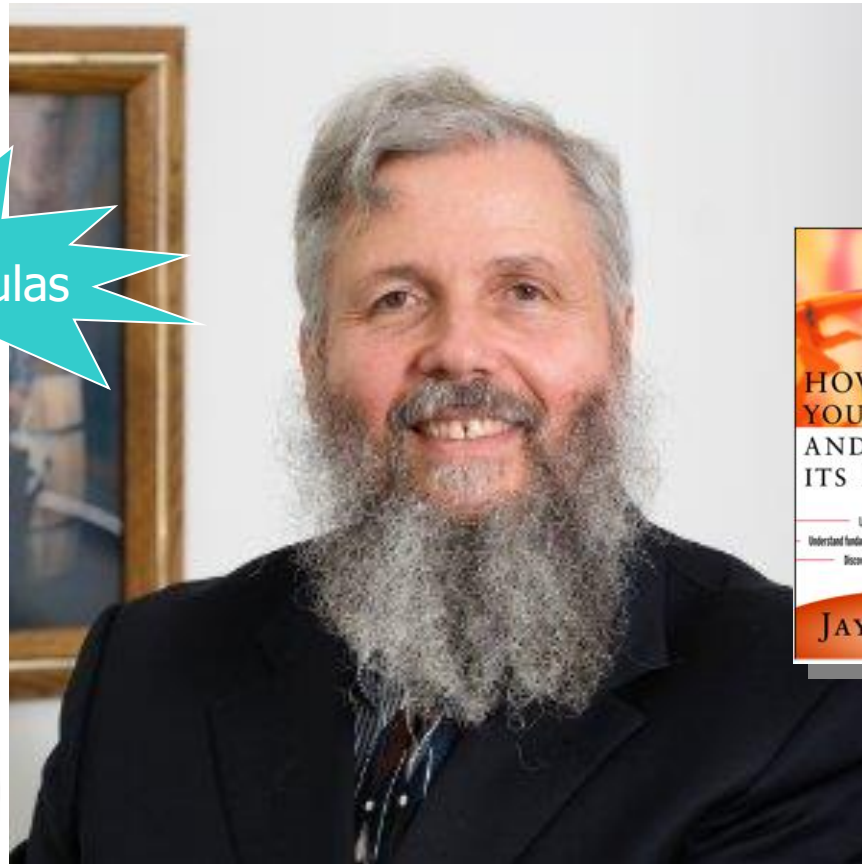
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About Jay Abrams

**ASA - CPA
MBA**

>150 Formulas



Overview

- The Body & Soul of a Valuation
- The Right Paradigm—Winning vs. Losing
- Valuation Fundamentals
- Flaws in the Valuation Process
- How Attorneys can help the Appraiser

Model Paradigm: Black-Scholes

- $P = EN(-d_2)e^{-R_f t} - SN(-d_1)$, where:
 - S = Stock Price
 - $N(x)$ = Cumulative Std Normal Distrib
 - E = Exercise Price
 - R_f = Risk-free, i.e., treasury rate
 - t = Time to option expiration

Black-Scholes

$$- d_1 = [\ln(S/E) + (R_f + 0.5 \times \text{variance}) \times t] / [\text{std deviation} \times t^{0.5}]$$

$$- d_2 = d_1 - [\text{standard deviation} \times t^{0.5}]$$

- Heat Exchange Equation
- Distribution of Galaxies in Universe
- Seeing the oneness in diversity and diversity in apparent oneness.

Physical Metaphors for Valuation

- Front stance—winning vs. losing stance
- Unbendable arm
 - Breathing connects mind and body
 - *Ruach, nefesh, neshamah*
 - As we have power beyond physical strength, the soul of the valuation goes beyond the sum of its technical components.

Body of Valuation

- **Body of valuation is the models, techniques, methods, and formulas**
 - A bad assumption, technique, etc. is like “hips out” in the stance. Opponent can push you over.
 - A series of good assumptions might make a good stance, but still lacks “the force.”

Soul of the Valuation

- The imagination, creativity, intuition, passion, critical insight, and integrity of the appraiser.
 - My article, “How Does Value Grow?” is a living, breathing, reality that exists within me and possessed me.
 - Unlike one who reads it. I lived it for months before submitting it for publication.

Body & Soul—Fusion of Right & Left Brain

Left Brain/Body	Right Brain/Soul
Technical Accuracy	Inspiration
Integrity	Creativity
Consistency	Critical Insight—What is this really about? Hitting the nail on the head.
Organization	Passion

Body & Soul together = life. One without the other = death.

Body & Soul (Cont'd)

- The intellectual 7-10 split
- Easier to be strictly technical or inspirational
 - All technique/no “spark” is lifeless and lacks impact on the reader of the report—or the jury
 - Inspiration without discernment, discipline, and organization leads to muddle-headed drivel.

Quotes from Great Physicists

- "Imagination is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand."—Einstein

Quotes from Great Physicists

- "A new idea is extremely difficult to think of. It takes a fantastic imagination."—Richard Feynman (1965), "The Character of Physical Law," BBC, p. 139.

My Own Quote

- "A scientist must be a great artist; otherwise, he is a technician."—Jay B. Abrams

The Right Paradigm

- Win or lose on the right vs. the wrong paradigm. This requires:
 - Creativity
 - Critical Insight
 - Technical Mastery
 - Cool under pressure
- To be continued in “War Stories”

Value is all about Love & Fear

- Investors love growth (g)—in forecast cash flows
- Fear risk (r)—failure, loss, ruin, and disappointment
- Underneath the fancy math is a world of primal excitement, exhilaration, and fear

U Chicago Econ Dep't Taught Intuition in Understanding Models—Apply to GMM

- Does the formula make intuitive sense?
- Gordon Model Multiple (GMM—valuing a mature firm with constant growth.
- $GMM = \frac{1}{r-g}$, where r = discount rate and g = forecast growth rate.
- Assume $r = 25\%$, $g = 5\%$: $GMM = \frac{1}{0.25-0.05} = 5.00$

GMM

- Investor pays \$5.00 today for each \$1 of cash flow we expect to receive at end of yr 1, growing at 5%/yr, \$1.05 yr 2, \$1.1025 yr 3, etc.
- For a firm with forecast cash flow in year 1 (CF_1) = \$10M, Value = \$10M \times 5 = \$50M.

GMM

- If $g \downarrow$ to 0%, $GMM = 4$, and $FMV \downarrow$ to $\$10M \times 4 = \$40M$.
- If $r \downarrow$ to 20%, $GMM = 6.7$, and $FMV \uparrow$ to $\$10M \times 6.7 = \$67M$.
- Value \uparrow with expected growth \downarrow with risk.
Does this make sense? Yes.
 - Value \uparrow with love (exp. growth)
 - Value \downarrow with fear (risk)

Examples of Winning and Losing Paradigms/War Stories

- Life Settlements vs. the Bond Paradigm—bonds are absolute obligations
- “The subterfuge increased the risk of their business”
- “The risk disappeared” in real est. lease

Great Paradigms—True in the Law

- What makes Clarence Darrow, Oliver Wendell Holmes, Alan Dershowitz, and Richard Posner a cut above?
 - It can't be only that they memorized more statutes than everyone else.

Great Paradigms—True in the Law Cont'd

- Is it purely superior delivery? And, if so:
 - From better acting skills?
 - Are they more genuine?
- Or is there something beyond that?
Genius, mastery, passion, conviction?
All?

The Sefirot (Divine Emanations)

	Left	Center	Right
Nature	Closed	Synthesis	Open
Intellectual	Cognition/Analytic	Recognition/Da'at	Inquiry/Intuit.
Emotional	Rejection/Discipline /Judgment	Compassion/ Beauty/Truth	Attraction/ Love
Functional	Humility	Bonding—room for self & others	Victory/Perseverance
Results		Kingship/Majesty	
Results		Success	

A Non-Jewish psychiatrist said this is a complete system

Applying Sefirot to Bus Val

- Right—Theory/Paradigm → Model
- Left—Details of the Model
- Center—Calibrating the Two
 - Does it hang together?
 - Any stories or business examples like this?
 - Example: Sporting goods—increased risk, damage = 5% of FMV, like a new car in collision
 - Like Enron/World Com for Arthur Andersen

Synthesizing Valuation Premise & Approach—Binary Qualities

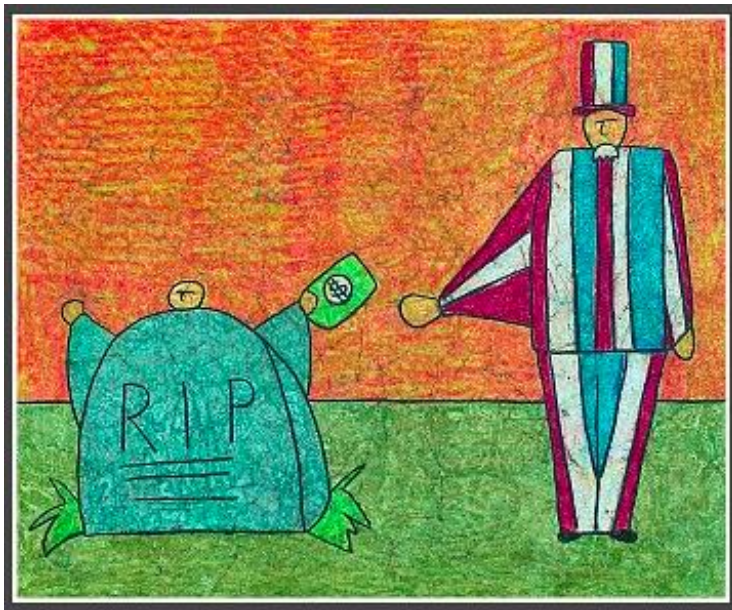
Fear/Strength	Love/Kindness
Risk	Return
Micro	Macro
Introvert (boundaries, self-oriented)	Extrovert (concerned with others)
Objective	Subjective
Thinking	Feeling
Fairness in Process	Fairness in Results
Law	Equity
Fair Market Value	Fair Value
Discounted Cash Flow	Guideline Companies

Importance of Binary Qualities

- Marketing appeal to judge or jury
 - Know your audience
 - Emphasize what will appeal to them
 - A kind judge (right) more favorable to argument that final result is unfair than a stern judge (left), who is concerned with fairness of the process but not outcome.

Premise of Value

- Going concern vs. liquidation value — is the business worth more dead or alive?



War Story on Premise of Value

- CPA previously valued a construction firm
- Calculated FMV
 - \$800k using DCF
 - Chose book value of equity at \$2.2M
- But Work-in-Progress >\$5M, and the firm would lose \$3M in liquidated damages in liquidation! Liq Value was negative!

Standard of Value

- Talmudic standard



Talmudic Std of Value

- Bava Kamma 86a
- 3 Opinions of the victim for valuing damages for embarrassment
 - 2 correspond to FMV, as one size fits all victims
 - 1 corresponds to Investment Value by the uniqueness of perpetrator and victim

3 Valuation Approaches



Asset

Income

Market

Synthesizing Valuation Premise & Approach

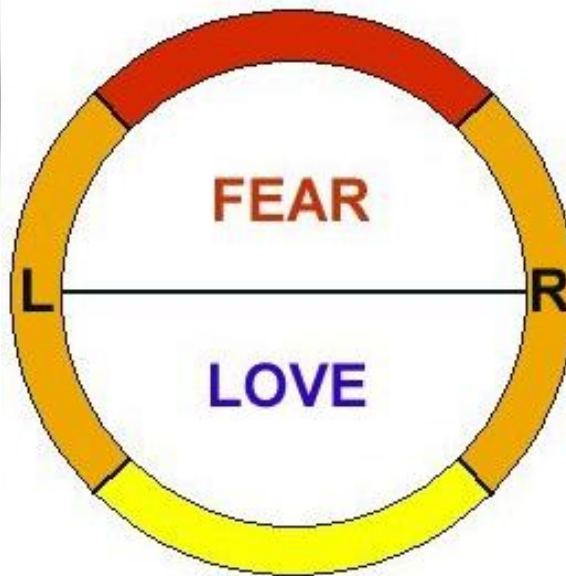
Approach	Asset	Income (DCF)	Market
Time Orientation	Present	Future	Past & Present
Strengths	Values the company dead	Custom tailored; Only method for startups	Objective; Regression gives feedback
Weaknesses	Ignores intangible value if using FMVs	Subjective; Many forecasting assumptions	Data issues; expensive; not 4 startups; Selection Bias

2 Primary Valuation Methods for Going Concern

- DCF is introverted
- GC is extroverted



Discounted Cash Flow (DCF)



Discounted Cash Flow Approach — 4 Steps

- Forecast cash flows (or cash flow differentials in litigation)
- Discount to present value
- Adjust for degree of
 - Control
 - Marketability

Discount to Present Value

- The process of translating future cash flows to value today adjusting for:
 - Time value of money
 - Risk (volatility) of returns

Gordon Model Multiples (GMMs)

- GMM is the PV of an infinite stream of cash flows with constant growth
- Good for a mature firm, not a high growth firm in its early years
- End-of-Year GMM = $1/(r-g)$
- Midyear GMM = $\text{SQRT}(1+r)/(r-g)$
 - Best for valuing businesses

GMM—Examples

- Assume $r = 24\%$, $g = 4\%$, forecast cash flow year 1 = \$1M
- Rough value is $\$1M \times (1/(24\%-4\%)) = \$1M \times 5 = \$5M$
- If g increases to 6%, value is $\$1M \times (1/(24\%-6\%)) = \$1M \times 5.56 = \$5.56M$, an 11% increase in value

Guideline Company Method

- Calculate multiples of publicly-traded (don't use for valuing small companies) and private companies in the same industry, then apply means or medians to the subject company
 - Price/Sales
 - Price/Earnings
 - Price/Cash Flow
 - Price/Book Value
 - Price/EBIT (or EBITDA)

Guideline Companies-Cont'd

- Better yet, use regression analysis
 - Regress Price as a Function of Sales, Net Income (or EBIT, EBITDA, etc.), growth, size, etc.
 - Or Price-Earnings or Price-Sales multiples as a function of ...

Flaws in the Valuation Process

DCF

- Clients are often unsophisticated and cannot make good forecasts
- Appraiser Problems
 - A series of assumptions tilted in one direction can seriously bias the result
 - Lack of attention to fixed costs
 - Lack of proper extrapolation of size premium in the discount rate

Flaws in the Market Approach

- Appraisers occasionally “cherry pick” comps. The solution is binomial model to detect expert bias—in Chapter 11, *QBV*, 2nd Edition.



- Messy Data

Flaws in Market Approach

- Lack of Comparability
 - Not the same industry
 - Different niche
 - Selection bias—Guideline Companies often have higher forecast growth than the subject company

Problems in Databases of Private Sales

- Messy Data—Missing observations from fields (columns of the database)
 - # Observations varies with which variables we include in regression.
 - Hellish trying regression in Excel, easier in stat programs

Problems in Databases of Private Sales

- No transaction date balance sheet info
 - Especially a problem with inventory in industries where significant.

Problems in Databases of Private Sales

- Growth is one of the two fundamental variables in Gordon Model multiple, yet:
 - No forecast growth. This would have been a lot to ask for. (I/B/E/S for public firms)
 - No historical growth. Lack of this is close to unforgiveable.

Problems in Databases of Private Sales

- Even most appraisers do not understand the weaknesses
 - “To know what you know and to know what you don’t know is knowledge.”—Don Solomon—and perhaps Confucius.

Weaknesses in DealStats®

- No strict control on what is included and excluded from the price. (IBA/NACVA ADAM database is better on this.)

Weaknesses in DealStats®

- Ideal measure of price is equity from allocation of purchase price in numeric fields on the deal date
- Market Value of Invested Capital (MVIC) = Cash paid + Liabilities Assumed.
- MVIC as price is inferior and can lead to distortions. Most business appraisers have no knowledge of this.

Weaknesses in MVIC in Deal Stats—MVIC/S vs. P/S Multiples

Sale Type	Stock	Asset	Asset
Liabilities Transfer?	Y	Y	N
Sales	\$1M	\$1M	\$1M
Assets	\$1M	\$1M	\$1M
Liabilities = L	\$500k	\$500k	\$0
Capital=C=P	\$500k	\$500k	\$1M
P/S = Price/Sales	0.5	0.5	1.0
P/S Result	Accurate	Accurate	Inflated—Seller has Liab
MVIC = L + C	\$1M	\$1M	\$1M
MVIC/S	1.0	1.0	1.0
MVIC/S vs. P/S	Inflated	Inflated	Appears same but inflated

Weaknesses in MVIC—MVIC vs. P/S Multiples

Line Item \ Deal Type	Stock Sale	Asset Sale
Sales	200	200
Net Income	20	20
PE Multiple (Assumed)	10	10
FMV	200	200
Cash & Accts Rec	10	0
Other Assets (Inv, Machinery)	90	90
Goodwill & Other Intangibles	150	150
Total Assets	250	240
Current Liabilities	15	0
Long-Term Debt	35	0
Equity = FMV	200	240

Weaknesses in MVIC (Cont'd)

Line Item \ Deal Type	Stock	Asset
MVIC = Equity + LTD	235	240
MVIC/Net Income	11.75	12.00

Conclusions:

1. MVIC is an inflated measure of price if there are liabilities assumed.
2. It is a serious problem that transaction date balance sheet info is unavailable, unless there is a Purchase Price Allocation—and that is a text field, not numeric, so it is impractical to use. Most recent balance sheet data are not good enough.

Weaknesses in MVIC

- Calculate equity with transaction date sales price, but old balance sheet data
- Use a contemporaneous inferior measure (MVIC) or a polluted superior measure (calculated equity)?
 - Our regressions show pure MVIC is better than polluted equity.

Reconciling DCF & Market Approaches

- DCF FMV often 2 to 4 times higher than Mkt. Weight them 50-50?
- Solution—Jay Abrams' method from Summer 2014 BVR article to “reverse engineer” market growth.
 - First use—DCF \$25M, Market Method \$85M, weighted 90%-10% saved client \$10M in gift tax.

How Attorneys Can Help the Appraiser

- Attorney Advantages
 - You know the clients better
 - Your different perspective is a good thing, if you roll up your sleeves and get down & dirty
 - You know the law much better than we do
- The danger—you know something we need to know, but you don't know that

How Attorneys Can Help the Appraiser—The Solutions

- Attorneys learn more valuation and appraisers more law
- Focused & open-ended discussions w/us
- Seek to thoroughly understand our work—you don't have to understand all the math to understand whether the logic makes sense

How Attorneys Can Help the Appraiser—The Solutions

- Too many attorneys abdicate appraisal to appraisers. This is a big mistake! We're all imperfect & incomplete. Collaboration is very important.
- Make sure our analysis makes sense
- Be curious—ask us lots of questions (inquiry)

How Attorneys Can Help the Appraiser—The Solutions

- Dare to think differently than we do! Ask whether a different assumption or approach might be better
 - Two attorneys I've worked with have asked questions that caused us to change our approach & numbers
 - One client—Dr. Stein—did, too.

How Attorneys Can Help the Appraiser

- Define the valuation assignment accurately and clearly
 - What business interest(s) are we valuing?
 - Valuation date
 - Purpose(s)—this is critical—remember the att’y who left out 1 of 3 purposes and cost an additional \$20,000 rework we could have avoided.
- Which Standards of Value Apply (FMV, Fair Value, Investment Value, Marital Value, PV of lost income, etc.)?

How Attorneys Can Help the Appraiser

- Present the relevant facts in an orderly, logical sequence
 - Attorneys with whom I work frequently use the Background and Valuation Assignment sections of my engagement letter to
 - save time in laying out the assignment,
 - ensure they've provided complete information and
 - avoid re-work and hours of discussion to ensure clarity

How Attorneys Can Help the Appraiser

- Inform us of important legal points that can affect values
 - Rights
 - Restrictions
 - Laws
 - Standards of Value
 - Relevant court cases
 - Key provisions of shareholder agreement

How Attorneys Can Help the Appraiser

- Examples

- Att’y didn’t know it was important for me to know upon ending employment, client had to sell shares back to Co. at \$1/share (or book value or something besides FMV).
 - This would blow FMV in litigation, but not necessarily FV in joint Texas/Calif jurisdiction in a litigation case.
 - I recommended settlement when opposing counsel made an error and over-valued the Company.

How Attorneys Can Help the Appraiser

- **Examples (cont'd)**
 - Sometimes it's something that is not there that should be that we need to know
 - COLA increases in real estate lease—recognizing this blew away opposing argument of risk
- **Hire us to review your contracts before signing**
 - You may not recognize provisions that have dangerous value-destroying or even value-enhancing effects to your client
 - A 2021 case—attorney had problematic conflicting definitions of when a private split \$ insurance terminated in different documents

How Attorneys Can Help the Appraiser

- Read our reports critically
 - Try to understand everything and ask good questions
 - Play devil's advocate, within reasonable limits

Questions to Ask

- What are the most critical and vulnerable assumptions?
- What problems are there in the data?
- What models and valuation approaches did we not use and why?
- What could go wrong?

Summary

- **The Body & Soul of a Valuation**
- **The Right Paradigm—Winning vs. Losing**
- **Valuation Fundamentals**
- **Flaws in the Valuation Process**
- **How You Can Best Work with Appraisers**

Summary

- Infrastructure
 - Premise of value
 - Standards of value
 - Valuation approaches
- This only scratches the surface. 1 hr is not enough time for this topic.

Final Questions?

