ROCKIES VENTURE Institute

ROCKIES VENTURE CLUB

HYPER ACCELERATOR

Valuations

The Art of Valuation for Early Stage Companies.

ROCKIES VENTURE CLUB

Colorado BioScience ASSOCIATION

Workshop Objectives

- **Understand why traditional valuation methodologies don't work for early stage companies**
- **Learn multiple valuation methodologies and how they CAN be used as a PART of your model**
- **Develop defensible models you can use in negotiations**
- **Identify tools and resources you can use in developing your valuation model**

Disclaimer

- **What you will NOT get:**
  - A definitive, exact valuation for your company such as a professional appraiser would supply
  - Deep dive into AICPA guidelines
  - Deep discussion of all term sheet provisions
  - Comprehensive hands-on experience with all valuation methods.

Everything Has a Value

What is Valuation?

“The present value of future cash flows.”

“A mutually accepted valuation between the company and its financial backer or backers.”

“Incorporates the entrepreneur’s determination of the acceptable amount of ownership that may be given in return for the investor’s capital or expertise as well as the investor’s assessment of the risks and rewards of the investment.”

Source: Valuing Early Stage and Venture-Backed Companies

Uses for Valuation

- Determine percentage of equity investment
- For IPO/Buyout at exit strategy time
- For stock options/warrants to key employees
- To drive company strategy
- Benchmarking performance against similar companies
- Others?

Valuation Is Part of Your Funding Life-Cycle

- **Proper valuation is critical to both entrepreneurs and investors**
- **Valuation is a continuous process**
- **Valuation should be tied to strategy**
- **Valuation should lead your timing of subsequent rounds and capital needs**

Stages of Company Development

-Friends, Family and Fools

-Before there is a "real" company, product or customers

-Usually Angel funding

-Has a beta or first release product and possibly a few customers

-Usually VC funded
-"Series A" growing the market

-VC "Series B-C, etc."
-Grow the market, groom for acquisition / IPO

Stages of Company Development

Estimated Company Value	Stage of Development
$250K- $500K	Has Exciting Business Idea or Plan
$500K - $2M	Has Strong Management Team in Place to Execute on Plan
$2M - $3M	Has Final Product or Technology Prototype
$3M - $5M	Has Strategic Alliances/Partners, or Signs of a Customer Base
$5M and Up	Has Clear Signs of Revenue Growth and Obvious Path to Profitability

Investors Think About Value in Terms of Their Portfolio

- **Your Company's Value is Not an Isolated Process**
- **The VC Needs to Reach Reasonable Returns Over the Whole Portfolio, Since 65% Fail**
- **You May Be OK at a 5x Return, but the Investor May Need 10x or 20x to Make Up for Previous Poor Investments**

Avoiding Valuation: Kick the Can Down the Road with Convertible Debt?

- **Convertible Debt with Nominal Terms and Interest Rate, e.g. 8%**
- **“Discount” on Conversion – usually 20%**
- **“Conversion” upon:**
  - Successful Series A Investment
  - Acquisition/IPO
  - Time limit – 12-24 Months

Avoiding Valuation: Kick the Can Down the Road with Convertible Debt?

- **No Avoiding Valuation**
- **Convertible Debt Has a "Valuation Cap" Which is Equal to What the Equity Valuation Would Have Been**

Understanding Pre-Money and Post-Money Valuations

Pre-Money: **What your company is worth before investment is made. E.g $1 million**

Post-Money: **What your company is worth after investment. E.g. with $500K investment, your post-money valuation is now $1.5 million.**

Your post-investment equity is then 66%

Exercise: Net Present Value of Sample Company

- **The Investor Wants to Make 10x Return on Investment**
- **The Entrepreneur Wants to Raise $500,000**
- **Projected Exit Strategy includes a $20,000,000 Exit**
- **No Further Investment Rounds Anticipated**
- **Keep the Number to Yourself for Now**

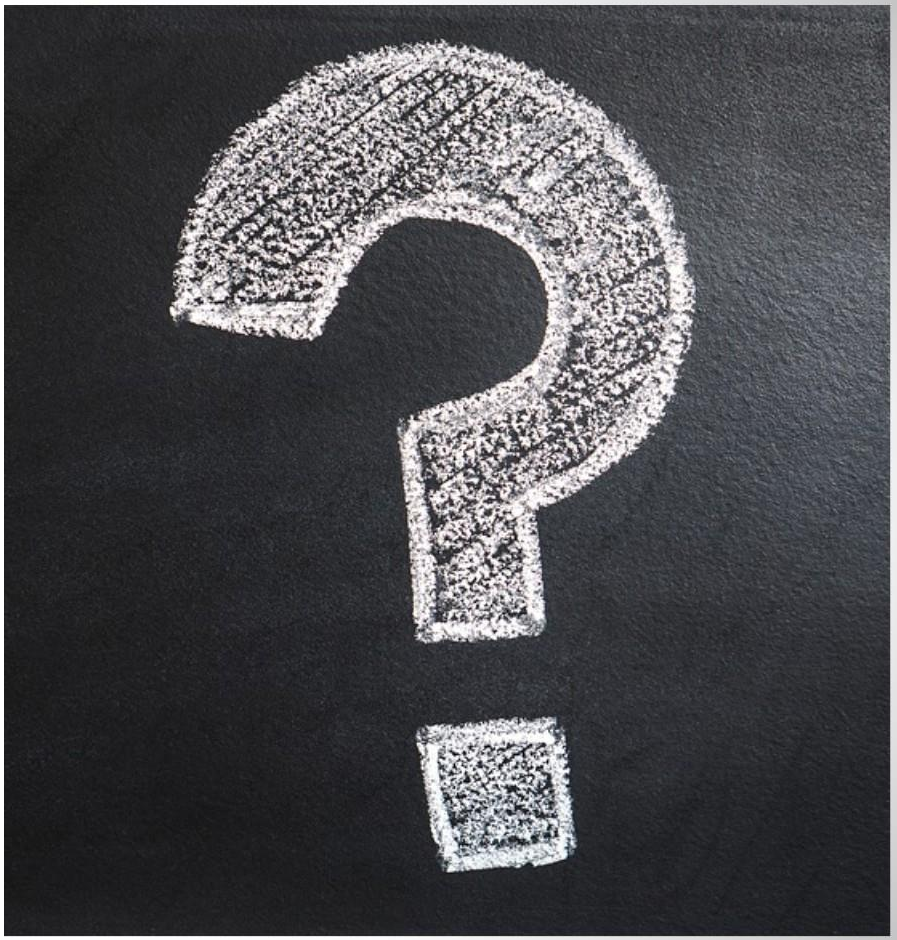
Exercise: Net Present Value of Sample Company

How Did You Come Up With Your Number?

- **$20,000,000 Divided by the 10x Return = $2,000,000**
- **Subtract the $500,000 Investment = $1,500,000 Pre-Money Valuation**

How Confident Are You in That Number?

What Else Do You Need to Know?



10X Return is an Assumed Discount of Future Cash Flows

$$DCF = \sum_{Y=0}^{N} \frac{FCF_Y}{(1 + R)^Y}$$

How We Make Decisions: Common Fallacy of "Anchors"

Predictably Irrational -

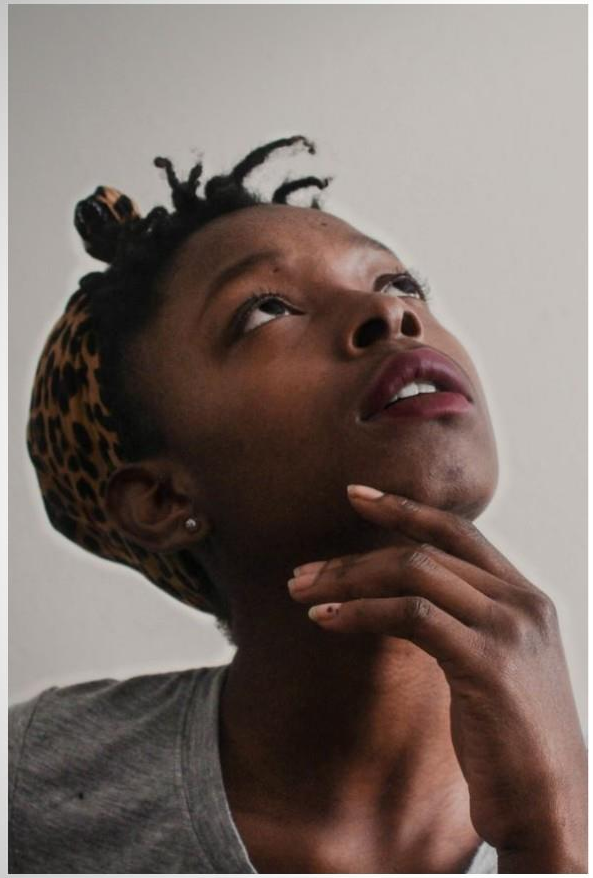
Daniel Arielly

- People write down the last two digits of their social security numbers
- Ask how much they would pay for the keyboard
- The people with the highest 20% of social security numbers said they would pay an average of $56 for a cordless keyboard, and the people with the lowest 20% of social security numbers said they would pay only $16 for the same keyboard

Thinking, Fast and Slow

Daniel Kahneman

- **Judges hearing parole cases almost never grant parole if it has been more than two hours since their last meal.**



Which Scenario is Best for the Entrepreneur?

If We Know That "Actual Valuation" is $3M (as validated by buyout some time later):

A). Entrepreneur Negotiates Equity Investment at Valuation of $2.9M

B). Entrepreneur Negotiates Equity Investment at Valuation of $6M

Term Sheets and Valuation

Don't Be Fooled

Common vs. Preferred Stock

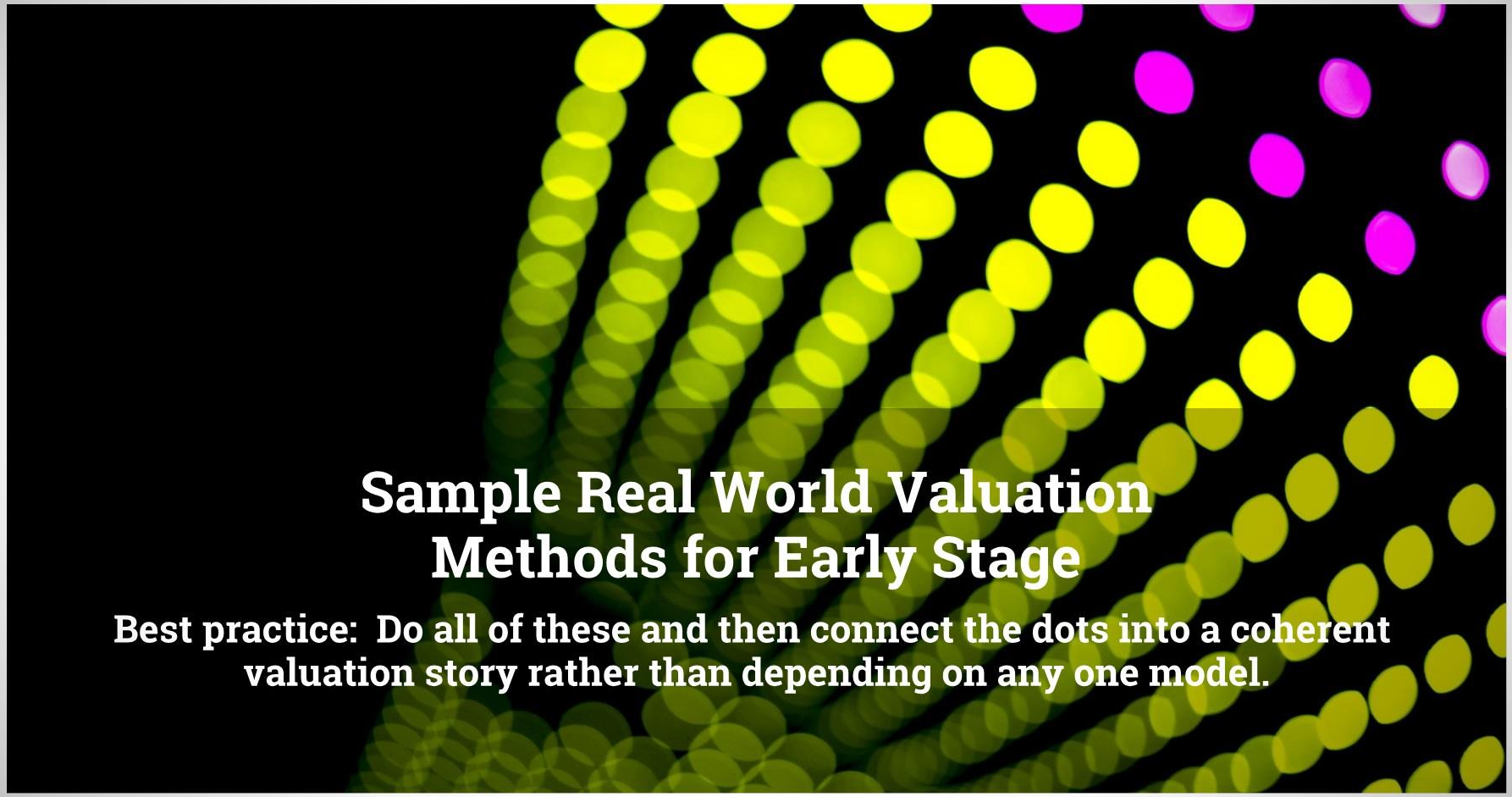
Anti-Dilution Traps

Liquidation Preferences & Breakpoints -- At a certain point, the common stock can be worth $0 until preferred liquidation preferences are achieved

Carefully consider 2x or 3x multiples, or high cumulative dividends that are effectively 2x or 3x

Understand How Dilution Impacts Valuation

- **Most deals have 2-4 rounds of funding**
- **Early investors are diluted by follow-on rounds so 30% can become 10% or less!**
- **Modeling dilution is critical to model potential returns**


Sample Real World Valuation Methods for Early Stage
Best practice: Do all of these and then connect the dots into a coherent valuation story rather than depending on any one model.

Valuation Method #1 - Burn Rate Based Valuation

- Calculate “burn rate” and total funds needed
- Build in 25-50% safety net
- Valuation = Total Burn Rate + Safety Net = 20-30% equity
- Test against exit strategy

Valuation Method #1 - Burn Rate Based Valuation

- **Example:**
  - Burn rate is $25,000 per month
  - 18 months are needed to get to major milestone (product complete, cash flow positive, etc.)
  - $25,000 x 18 = $450,000
  - **Raise should be $500,000 @ 25% equity**
- **What is the value?**

Valuation Method #1 - Burn Rate Based Valuation

- **Here is the Math:**
- **$500,000 = 25% of what number?**
- **$2 Million**

Valuation Method #2 - Venture Capital Method

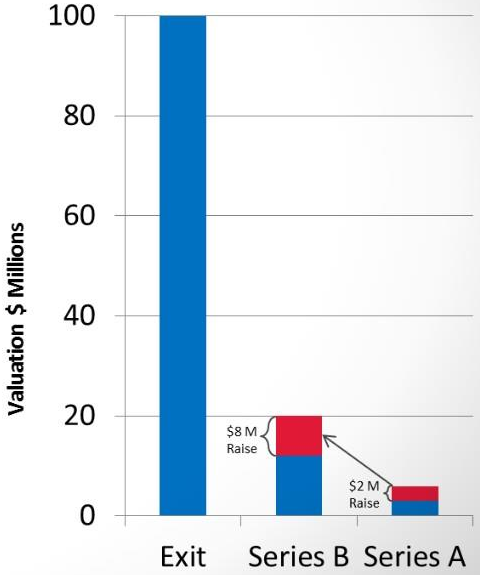
- **Two Factors:**
- **Ultimate Liquidation Value (preferably in five years or less)**
- **Risk Factors in getting there**
  - Management team
  - Markets and competition
  - Resources
  - Technical Risks

Valuation Method #2 - Venture Capital Method

Investment	$1,000,000
Exit Year	5th Year
Revenue	$10,000,000
EBITDA	$1,000,000
P/R for Similar Companies	5x
Terminal Value	$50,000,000
Target IRR	60%
Target Investment Multiple	10x
Post-Money Valuation	$5,000,000
Pre-Money Valuation	**$4,000,000**

Venture Capital Method - Working Backwards From Exit

- **Assume: $100M exit and $10M capital raise, with $2M Series A and $8M Series B**
  - **$8M Series B – 5x Return to Exit**
  - Post-Money = $20M
  - Pre-Money = $12M
  - **$2M Series A – 3x Step-Up from A to B Round**
  - Post-Money = $4M
  - Pre-Money = $2M



Assume EITHER Venture Capital Method or CAP Table Method, but not both.

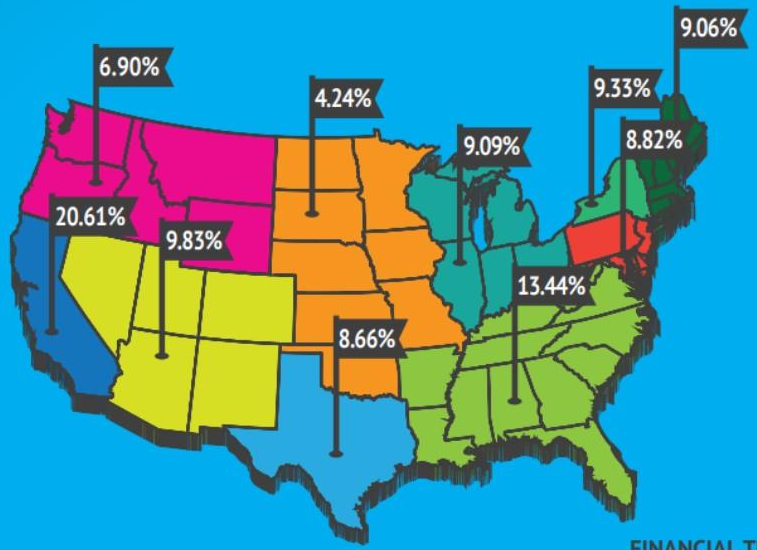
Valuation Method #3 - Scorecard Method

- **Similar to Real Estate Appraisals**
  1. **Start with the Average Valuation for Companies in Your Region**
  2. **Add or Subtract Points Based on Key Factors**

HALO REPORT OVERVIEW

WHERE THE ANGEL-BACKED DEALS ARE LOCATED

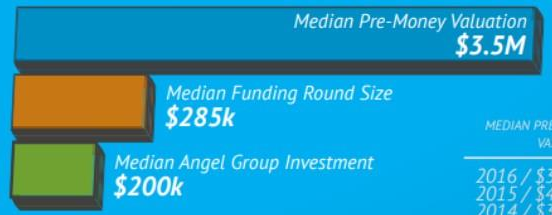
(PORTFOLIO COMPANY HEADQUARTERS)



Start With a Baseline

FINANCIAL TERMS OF ANGEL INVESTMENTS

(FIRST ROUND DEALS, AGNOSTIC TO GEOGRAPHY AND INDUSTRY)



MEDIAN PRE-MONEY VALUATION

2016 / $3.65 M
2015 / $4.60 M
2014 / $3.00 M
2013 / $2.50 M
2012 / $2.50 M

Valuation Method #3 - Scorecard Method

Average Company Valuation			**$3,000,000**
Team	30%	200%	0.60
Opportunity Size	25%	200%	0.50
Product/Technology	15%	100%	0.15
Competitive Environment	10%	125%	0.13
Marketing/Sales Partnerships	10%	200%	0.20
Need for Additional Investment	5%	50%	-0.03
Other Factors	5%	150%	0.08
Scorecard Adjusted Valuation			**$4,875,000**

Valuation Method #4 - Risk Factor Method

- Start with a Baseline Value (Just Like the Scorecard Method)
- Consider and Assess Risk
- Assign Positive or Negative Values to Each
- Calculate the Total Plusses and Minuses for a Total and Add/Subtract $100,000 for Each Point

Valuation Method #4 - Risk Factor Method

Assign Values to Each Risk

- **Maximum/Minimum = +3/-3**
  i.e., "Stage of Business Risk"
  - 0 for pre-revenue
  - +1 for beta
  - +3 for paying customers
- **+1= $100k added to pre-money valuation**
  -3 = $-300k subtracted from pre-money

Valuation Method #4 - Risk Factor Method

Technology Risk	+2
Execution Risk	+1
Market Risk	-1
Competitive Risk	-3
Financial/Funding Risk	+1
Political/Legal/Regulatory Risk	0
Economic Risk	-1
Social Risk	+2
Partner/Supplier Risks	-2
Other	0
Aggreagate Risk Factor	+6 -5 = +1
Risk Adjustment	+$100,000
Comparable Value Assumption for industry/stage	$3,500,000
Risk Factor Adjusted Valuation	**$3,600,000**

Determining Exit Value

Model future cash flows using bottom-up analysis (NOT just percent of market)

Adjust future cash flows for risk probability

Research industry trends for IPO/Acquisition

Research Strategic Acquisitions

Understand typical acquisition amounts

Document multiples of EBITDA, clients, revenues, etc.

Putting It All Together - Valuation Summary

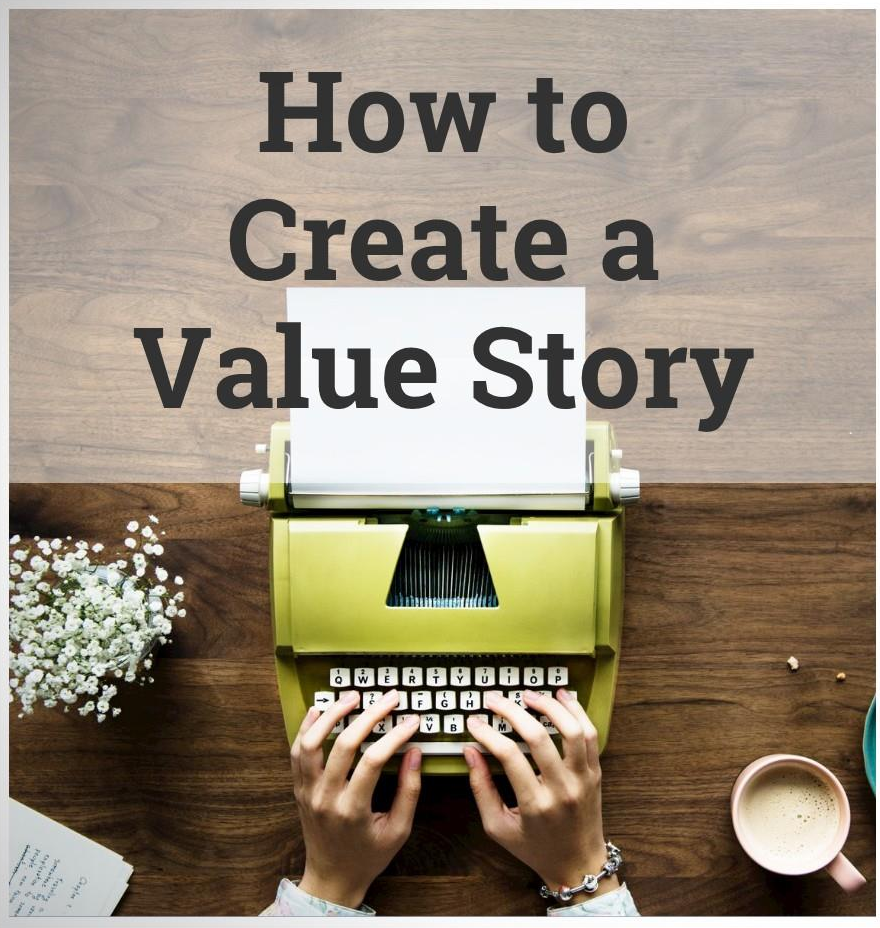
Venture Capital Method	$4,000,000
Scorecard Method	$5,000,000
Risk Factor Method	$4,500,000
Cap Table Method (Multi-Raise/Dilution Method)	$4,250,000
Burn Rate Method	$5,250,000
Gut Check Method	HI / LO / Expected
Standard Deviation	**$518,411**
Median	**$4,500,000**
Average	**$4,600,000**

Your Value Story

- **Reality: Ultimately it's all about your story**
- **It should be supportable**
- **The risks/rewards should be transparent**
- **The story is a starting point for discussion**
- **Your story should be coherent and compelling – don't just stop at the numbers**

How to Create a Value Story

How to Create a Value Story

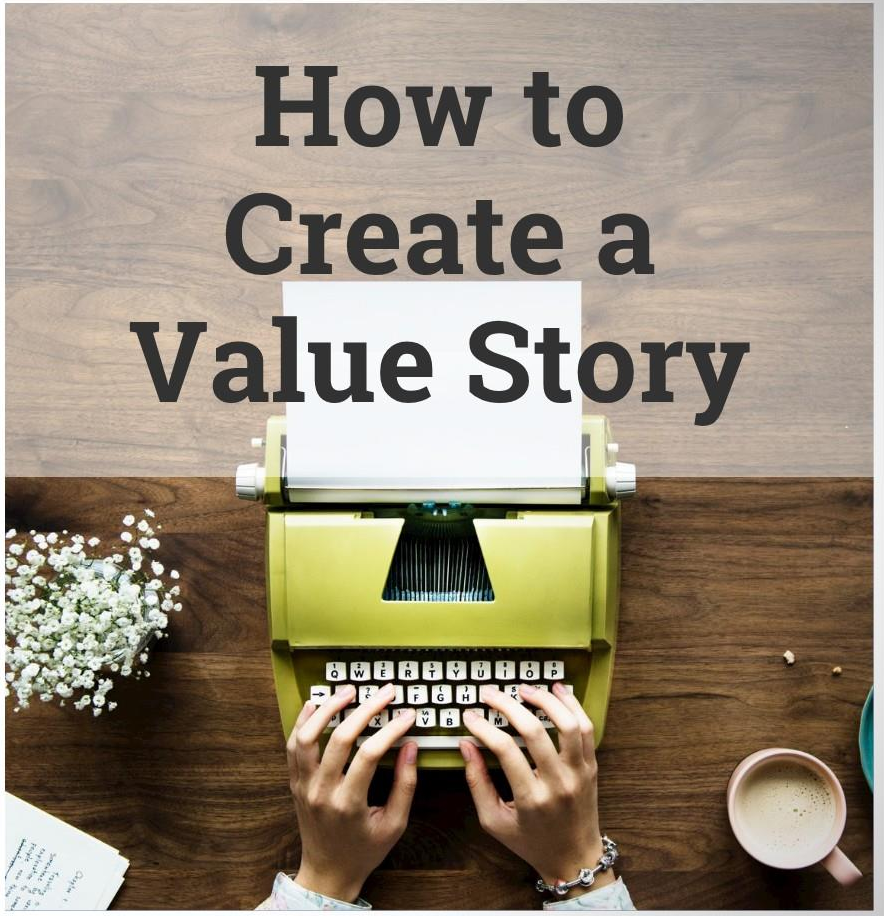


Part 1: Summary of Business Model

- Product
- Competition
- Market
- “Pain” that is solved and ROI for customers

Part 2: Summary of Key Strengths

- Mgmt Team
- Product
- Strategy
- Hurdles that you've already overcome



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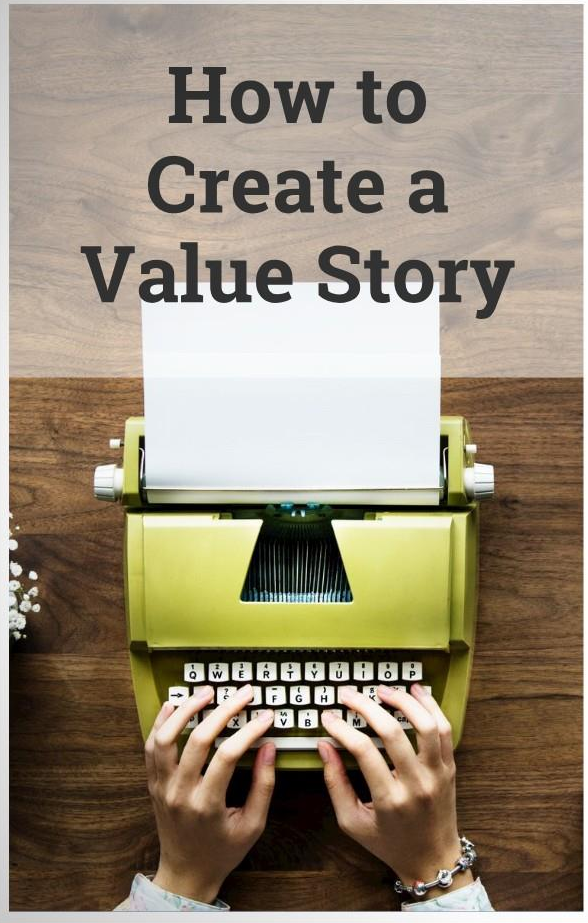


Part 3: Describe Your 3 Unknowns

1 Future Cash Flows

- Marketing Plan
- Competition
- ROI for Clients
- Bottom Up Growth Model
- Top Down Potential in Market Niche

2 Exit Value

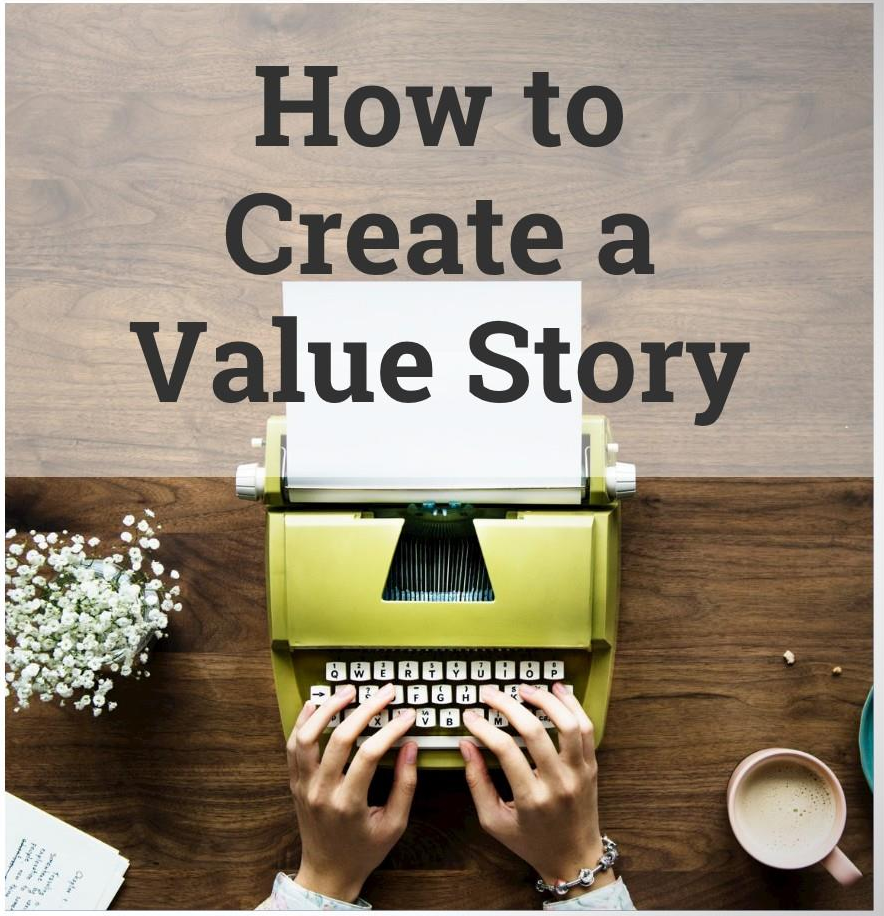
- Based on Future Cash Flows
- Validate Industry Multiples
- Comparables from Pitchbook or other resources

3 Risk Profile

- Reference Key Risks and Mitigation Strategies for each
- Identify Trends and Inflection Points

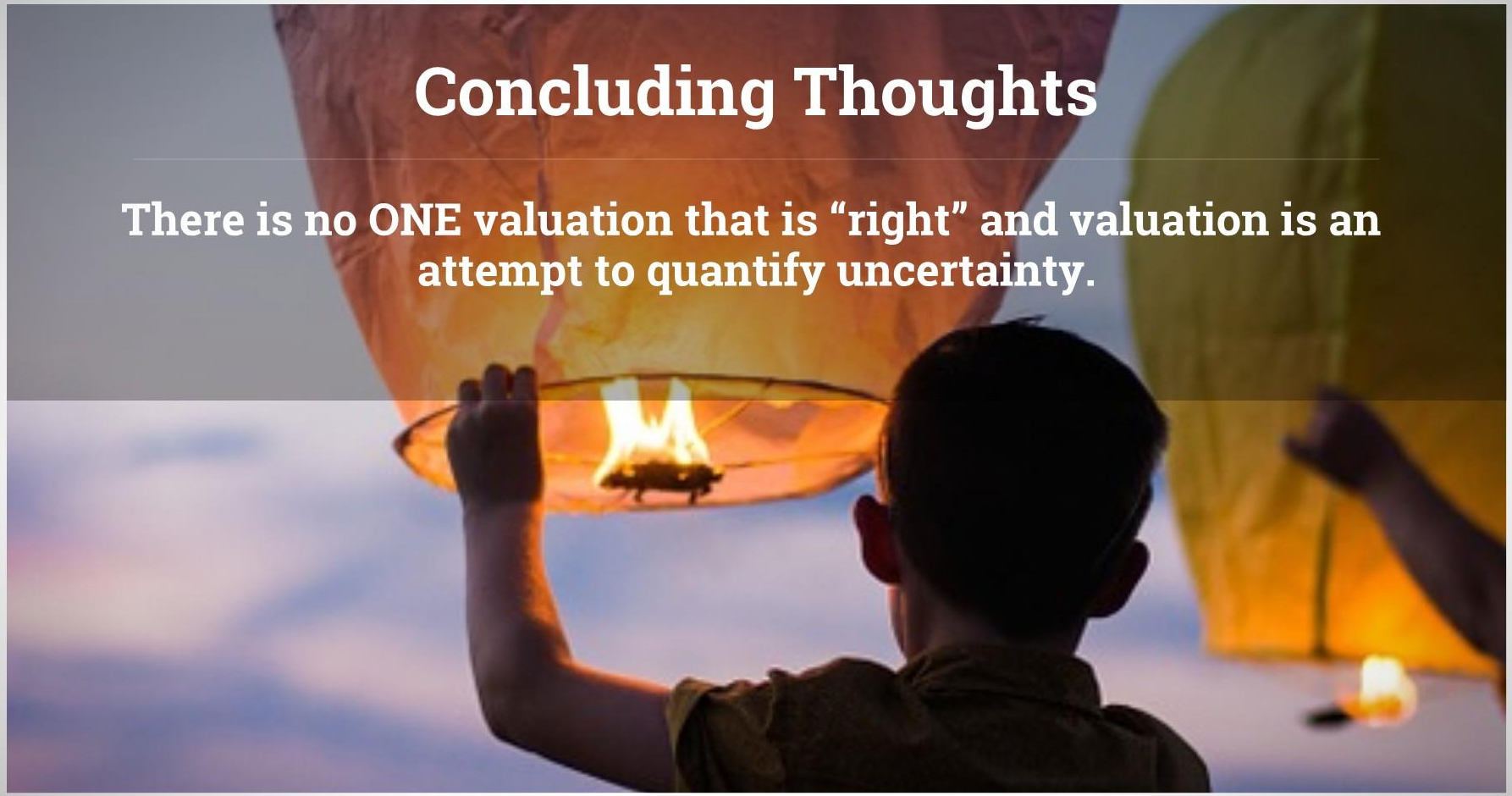
Part 4: Happy Ending to the Story

"Today's value is based on future cash flows, exit value and risk profile to determine risk adjusted present value."



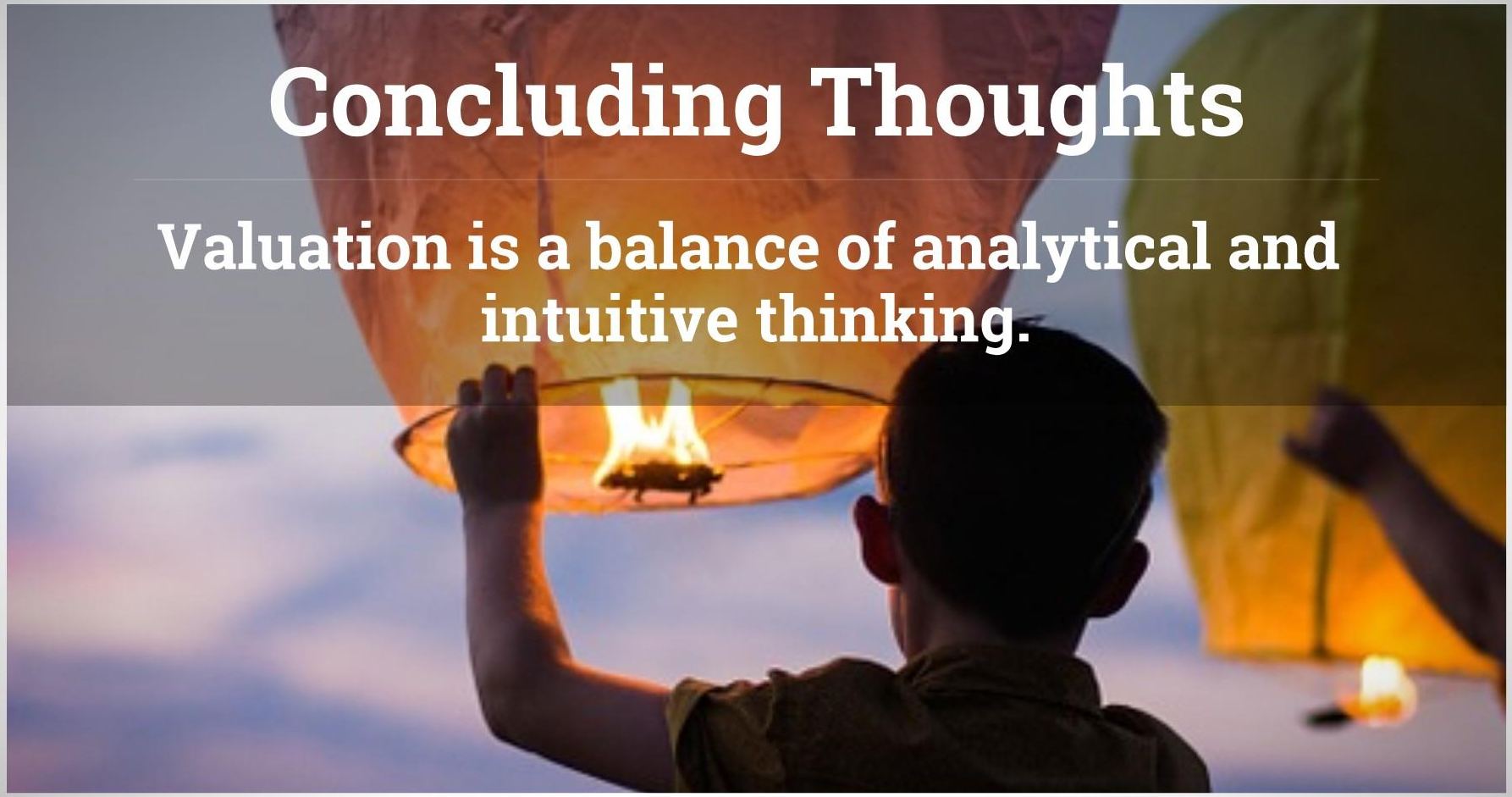
Concluding Thoughts

There is no ONE valuation that is “right” and valuation is an attempt to quantify uncertainty.



Concluding Thoughts

Valuation is a balance of analytical and intuitive thinking.



Concluding Thoughts

Transparency is the best tool for coming to agreement on valuation.

Concluding Thoughts

Prepare multiple valuation models and play them off each-other.

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