ENTREPRENEURIAL FINANCE

Valuation

Used for
- Mergers, Buyouts
- Securities Analysis
- Undervalued Stocks
- IPOs
- Strategy
- The focus! → * Venture Capitalists

There are Qualitative aspect & Quantitative

Qualitative BEFORE Quantitative

If this is not good, won't even bother

Qualitative :

1. Industry Dynamics (what's out there?)
2. Product / Service Details (What are you making?)
3. Org. Factors (How are you running?)
4. Manuf. / Process (How are you making?)
5. Legal (Patents, etc.)

→ Industry Dynamics "What's out there?"
"Who/What are you?"

1. Growth Phase — [Embryonic]: No cust. just ideas
   - [Developmental]: Prototype, Customers.
   - [Expansion]: Want to expand on ↑
     Do you have a good plan of Execution?
   - [Consolidation]: Mergers and Acquisitions.
   - [Mature]: Been around a long time. Want to reduce costs, focus on products w/ high margins.

Find investors whose prospectus aligns with

2. "Company Posture" — [Unique tech/Product]
   - [Strong niche]
   - [Good Strategy/Execution]
   - [Consolidator or Acq. prospect]
   - [Makes stuff at Low Cost]
   - [High Margin Stuff!]

   or both

3. Other: — Market Size / Forecast
   - Regulatory Climate
   - Geographical Constraints
   - Import/Export Dynamics
   - Cost Structure.

→ Product or Service "What are you making?"
"How strong is your Proprietary position?"

Proprietary Position

- Tech Company
  - Patents?
  - Quality?
  - Alternatives
- Manuf
  - Process?
  - "Product change skills" (???)
- Retailer
  - Dist model?
  - Data system?

What about Customers?
- Size
- Diversity
- ~~Sa~~ Satisfaction

What about Dist. Methods?
- International Expansion?
- Potential for other channels.
- Sales Channels?

What about Service and Support? (see between...)

→ Org. Factors ("Who are you")

top ↓ bottom

- Who is CEO as a person?
- Strength of Middle Management
- Staff Productivity (Financial and non-Fina)

→ Manuf. or Process ("How are you making things?)

- → Operating Leverage (are in low-wages area? Eg)
- Process Flexibility
- Out sourcing oppor.!
- Logistics improvements?

→ Legal Issues

- Env. analysis (if Manuf)
- Disputes

* Balance Sheets are simply not Enough
"Trust no ledger Entry!"

→ Financial Consideration

- Profitability Analysis
  - Sales Growth prospects
  - Manuf. Cost Structure.
  - Gross Margin.
- Asset Management Review
  - Working Capital (– DSO levels)
  - CapEx levels.
  - Inventory turnover.

Net Worth $\equiv$ Equity!

Qua~~nti~~tative Valuation

After Quali
Many methods

Comparables — Easy, Wall St loves this.
— Compare like companies (eg. β)

FIND
1. Risk (β)
2. Growth Rate (like "lifecycle")
3. Capital Structure (Debt-to-Equity Ratio)
4. Size and timing of Cash Flows (!!!)
5. ~~Sim~~ Space (Healthcare, Cable, Tech ...)

Why this Sucks
- Cannot get data on Private Firms.
- Financial Info not there &
- Misguided Valuations (Eg. DOTCOM, AI)

What to Compare:

COMPARE

→ Public
- P/E Ratio
- Price / EBIT
- Market Value of Equity / Sales
- " " / Book Value of Equity

→ Private: Not Clear. Eg. (if internet company, look at Eyeballs.
(if Biotech, look at patents

But 20-25% Liquidity Discount

"100% Equity" ← this means zero-debt!

$$P/E = \frac{\text{MV per Share}}{\text{EPS}}$$

$$\text{EPS} = \frac{\left(\text{Net Income} - \text{Dividends!}\right)}{\text{\# of out Shares}}$$

Mark. Val of Equity = (# of Out Shares) × (Price of Share) (+ Long-Term Debt)

= (EPS) × (P/E) × (# of shares) + Long-term Debt

Book Val. of Equity = Net Worth you idiot.

How to do this.

P/E

MV/EBITDA

MV/Sales

MV/BookVal

TO Value	Comp A	B	IMPLIED VALUE
Avg of	0	0	
Avg of	0	0	

→ Take Averages across comparables and multiply by appropriate denominator! IN COMPANY TO VALUE

→ In P/E → this is Net Income.

Net Present Value

GOD HELP ME.

(Net Work. Cap)

ΔNWC

"Free Cash Flow": $$$ left after funding Growth

↳ Idea is that you discount this using WACC

- Distinction between CF (Cash Flow) and PV (Pres Value) $\left(= \frac{CF_n}{(1+r)^n} \right)$
- Basically NPV $\boxed{\text{BUT!}}$ Taxation is diff!
  Determine when and how much taxation
  How? NOL!
-

→ FCF and EBIT are different!

→ NPV and "Fair Market Value" are different!

$$TV_t = \frac{FCF_t \, (1+g)}{(r-g)} \quad \text{or} \quad \frac{EBIT(1-T)(1+g)}{(r-g)}$$

Retentions : R ← Ownership

$$R_{new} = \cfrac{R}{\cfrac{\left(\frac{1}{1+r_1}\right)}{\cfrac{\left(\frac{1}{1+r_2}\right)}{\cfrac{\vdots}{\left(\frac{1}{1+r_n}\right)}}}}$$

Round 1

Round 2

Round n.

$$\approx (R)(1+r_1)(1+r_2) \cdots (1+r_n)$$

→ "Net Income" ≡ "Earnings"

VC Method → $\dfrac{\text{\# of New Shares}}{(\text{Existing} + \text{\# of New Shares})}$ = % ownership

Increase by this much for this much new ownership

Venture Capital Method

RISK CAPITAL

· Exiting means the provider of Capital's exit!

Stages: R&D → Startup → Early Growth → Late Growth → Exit

→ They want to Exit via
- IPO (preferred)
- Sell business and gimme cash!!

Kinds of Risk Capital:
1. Bootstrap
2. Angel Investors
3. VC firms.

Bootstrap
- personal (90% is yours)
- familia

Angel
- $25k – $500M
- Wealthy individual
- Long horizons

VC
- & Ltd Partners: $$$ Capital
- & General Partner → manage
- High risk, high return

CA / NY } Big VC areas

VCs are Private Equity firms
- Leveraged buyout (Public → Private)
- VC funds
- Mezzanine funds
- Distressed debt (Quasi Equity)

Whence Money?
- Endowments
- Pension funds
- Insurance
- Corp
- Indiv.

Some states don't allow this...

Make a huge impact. GDP 19T, VC Comp 2T!

What about types of Partnership?

MOBILIZE HUMAN CAPITAL

Limited (passive):
- Reduce Liability
- Finite Life (10 yrs)
- After that, "unwind partnership", Share profits (GPs + LPs)

How is shit organized?

GP makes "Capital Call" to LP
LP responds with "Capital Commitment"

LP → 99% of Capital
70-80% of Profits

GP
- 1% of Capital
- 20-30% of profit
- 2-3% /year fee

INVEST
Eg: \$100M
- \$1M GP
- \$99M LP

(Wait 10yrs)

Valuation/Rev. \$1.1B —— 1.1B − 100M
- \$200M GP
- \$800M LP

Yrs	GP
1-2	Raise \$
3-9	Add value, Monitor.
10	Reap!

Why do LPs trust GPs?

"Incentive alignment"

AKA: Getting money so why would they?

"Agglomeration Economies"

when sites close together.

→ Directing and Monitoring are the big things that VC does.

→ VCs call other VCs → "Syndication"

- Risk
- Validation (What do others think?)

How do they Decide? VC Pyramid

1000	Read them
50	"Hmm.... analysis Q n Q" (DUE DILIGENCE)
10	Invest!

- Will it go IPO in 4-7 years?
- Who is managing this?
- They have high integrity? Reputation?
- Good Product (SUST COMP. ADV!) ROR > COC
- Customers?
- Margins?

"10x in 5yrs?"

@ P/E > 15+?

Use FV: $5M \xrightarrow{5yrs} 50M$

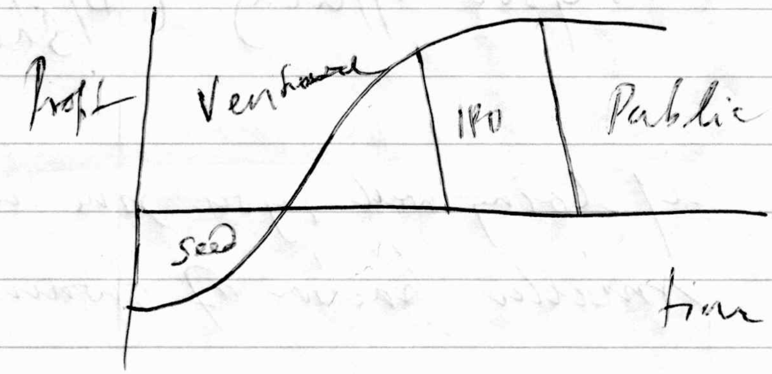
$\frac{50}{\cancel{5}} = 5(1+r)^5$

$\Rightarrow r = 58.5\%$

Exit Strategies

- Timing
- Process
- Marketing
- Time, Resp
- Env.

When to take Public?



Public debt + Equity (A = L + SE)

* WHEN YOU ~~GE~~ CAN GET THE HIGHEST POSSIBLE MKT VALUATION

≈ 2-3 years of profitable history

1/3 of firms do not show profits.

Why? → higher liquidity.
→ Capital!
→ high valuation, profits.

(−) More mgmt
(−) Public scrutiny ∴ transparency.
(−) Net Worth of Principals is public.
(−) More work (1/4, yearly reports)

You Need :
- Mgmt team CFO, CMO,
- Strong financial controls
- Good Ind. condition.
- Good offering ($/share)

* HIGHEST MKT VALUATION

* MIN DILUTION FOR EXISTING PEOPLE WHO FUCKING GAVE YOU THE $$$ YOU UNGRATEFUL ASSHOLE.

if doing well, you give up smaller fraction of ownership

NI	$2000		$4000
PE Multiple	10x		10x
Pre IPO Valuation	$20,100k		$40k
IPO $$$	$20,000	Same eq	$20k
Post	$40,0000		$60k
% own	$\frac{20k}{40k} = 50\%$		$\frac{20k}{60k} = 33\%$

TIMING

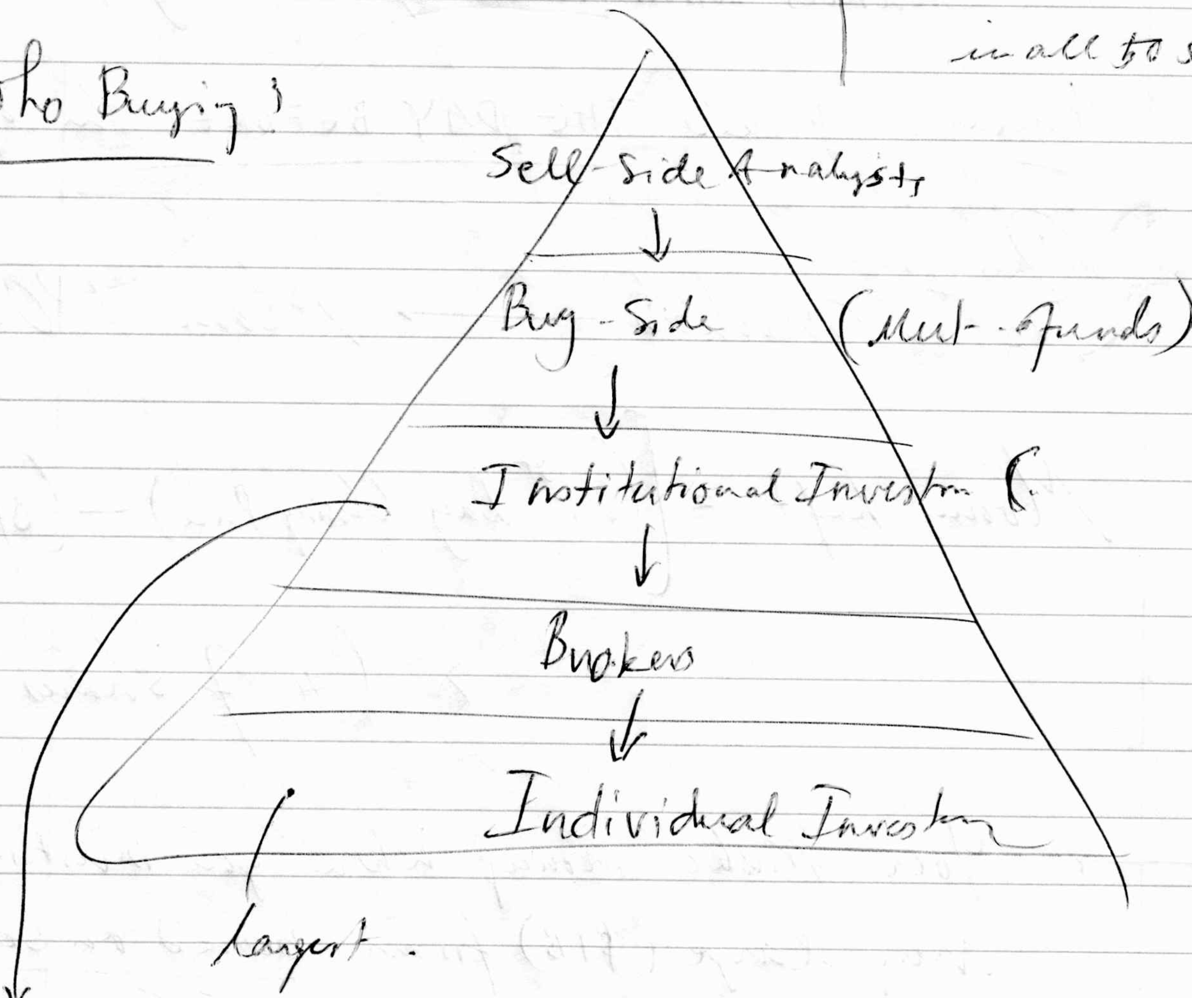
\$ start — IPO / Aftermarket Supp (Eg Morgan bought FB stocks when people were selling) — Cost of Eq. capital.

Players: Lawyers
Lawyers
Lawyers
PR
Accounting / Bankers.

S1 → SEC
document

"Blue Sky" Clearance
↳ Clearance to sell securities in all 50 states.

Who Buying?



Wall-Street wants more of this though...
∵ You and I would just sell. ↑ more "stable"

<u>Cost</u> : 7% to Investment bankers.

IPO cash $100M? you get $93M

"<u>Road Show</u>" : "Scarcity Value" → You missing out!

Bankers assess value of stock by pitching.

<u>Pricing</u>: Picked <u>THE DAY BEFORE</u> the offering!

Better markets ⟶ More IPOs

Money Left = [(1st Day Closing Price) − (Offering Price)] × (# of shares)

→ You make money when you invest in very large ($1B) firms <u>based on sales vol</u>

Comparables ← lots of weight
||| ^{r} firms (profile)
- Risk
- β
- lifecycle
- capital
- spen-

Sucks : Data on private firms!
Misguided valuation!

Liquidity discount : Apply to private firms only!
using public data.... → not as liquid.