## Understanding how VCs think

(The Math behind Venture Capital)

## Typical VC Firm structure



## Role: Investors

- Investors (also called Limited Partners or LPs) are typically large family offices, or pension funds that have significant capital to deploy.
- Typically, they park their available capital across different asset classes (bonds, listed equity, real estate, and venture capital)
- VC component is the riskiest, but offers highest potential return
- Typically $2-5 \%$ of the overall available capital.


## Role: GP (Or General Partners)

- Manage the fund management company (typically an LLP) as well as the fund
- Obtain "commits" from the LPs, in exchange for a promised return
- Assisted by analysts, EIRs and other "mentors"; salaried
- Manage the operations of the fund through a "fund management fee" which is meant to meet ALL operating expenses (salaries, rent, electricity, travel, entertainment .... )
- GPs also earn a "carry" when the exit in an investment happens.


## The 2-20 "Rule"

- A VC firm takes $2 \%$ as management fee per year. Thus, for a $\$ 100$ Million, 10 year fund, they use up to $\$ 2 \mathrm{M}$ per year for operations (overall \$20M).
- This leaves a total "investible" capital of \$80M.
- They can earn a "carry" of 20\% if, and ONLY if, they exceed the returns demanded by the LPs.
- A typical return demanded by LPs? About 12\% PA.


## Now for the Math



Assumptions:

- 10 year period for fund
- Annual return of $12 \%$ for LPs
- Fund size: \$100M


## Remember Pareto (80:20)?

$80 \%$ of your returns will come from $20 \%$ of your companies.
A more common scenario:


## Now make your investments

Assume:

- You make 10 investments (across Seed, Series A and Series B); all equal
- \$8 M each (spread across Seed, A and B rounds)
- Why not $\$ 10 \mathrm{M}$ ? (Remember your management fee of $2 \%$ !)
- At exit stage, you hold $25 \%$ in each company


## Scenario 1

## All exit at an average of \$50M



Returns

- 10X12.5 = \$125M
- No where near \$310M


## Scenario 2

## 5 exit at \$50M, 5 at \$100M



Returns

- $5^{*} 12.5 \mathrm{M}+5^{*} 25 \mathrm{M}=$ \$187.5M
- Still no where near \$310M


## Scenario 3

## Throw in an over achiever



## Returns

- Added up .. \$287.5M
- Almost there!


## Scenario 4

## We NEED a Unicorn!



## Returns

- Finally: \$362.5M
- But is this REALISTIC?


## The Reality

## 5 fail, 3 small exits, 1 medium exit and 1 large exit



## Returns

- \$318M
- How many funds can you think of who actually did this?


## How VCs think ... <br> What do I do to reduce the risk for my investment?

- Development Risk
- Market Risk
- Execution Risk
- Finance Risk


## And hence the focus:

## 5 Ts you should remember

- Team: Is the team cohesive, capable of execution?
- TAM: Is the total addressable market really, really huge?
- Technology: Is this something that can be leveraged, and used to scale?
- Traction: What is the company showing now? Rapidly growing?
- Trenches: What are the defensive positions that the company has?

