# EQUITY FINANCING: VALUATION

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**Photo:** Wholly Moly!

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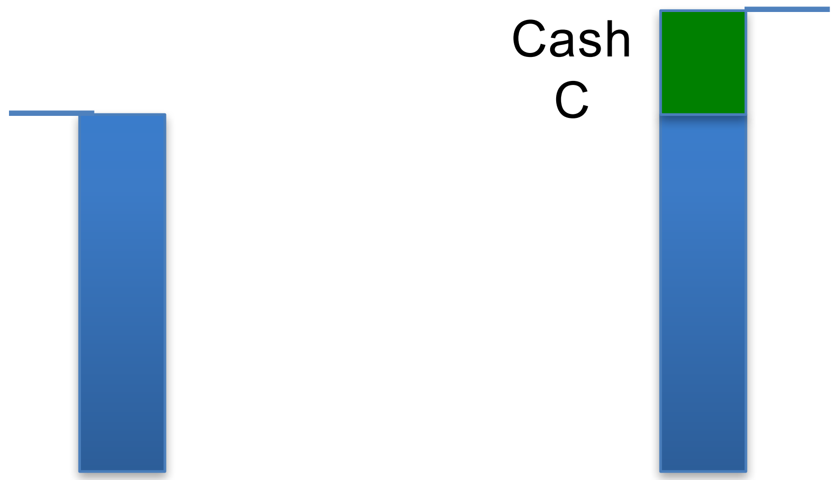
## Value

- Defined by the price of a transaction between a willing buyer and a willing seller, usually an investor and a company.
- In any specific case, value is determined through negotiation.
- Ideally that negotiated value reflects the fundamental financial value of the company based on the long-term expected cash flows.

## Why do you need to value the business?

- You do not need to establish a value for the business unless you are going to sell a fraction (or all) of the company to another party.
- In that case, the buyer (investor) and seller (you and your company) have to agree on a price. What fraction of the company does the investment purchase?

## Review: *Pre-Money* and *Post-Money Valuation*




e.g., if 100,000 USD is invested in a company with a pre-money valuation of 1,000,000 USD, then the post-money valuation is 1,100,000 USD and the investor owns 1/11 (9.1%) of the company.

$$Y = X + C$$

Investor ends up owning C/Y = C/(X+C) share of company

## It’s in everyone's interest to estimate value accurately!

- If too high, your investor won’t make a good return. That’s not fair, nor is it good for you and your reputation.
- (And if your expectations are too high, you won’t be able to attract the investors you want and need.)
- If too low, the entrepreneur (you) and the team will not retain enough equity to be sufficiently motivated to maximize the value of the company.

## Some Approaches

1. Value of the inputs.
2. Comparable companies and transactions.
3. Discounting for time and risk from some estimated future value.
4. Multiple of earnings (or revenues).

## 1. Valuation Based on the Value of the Inputs

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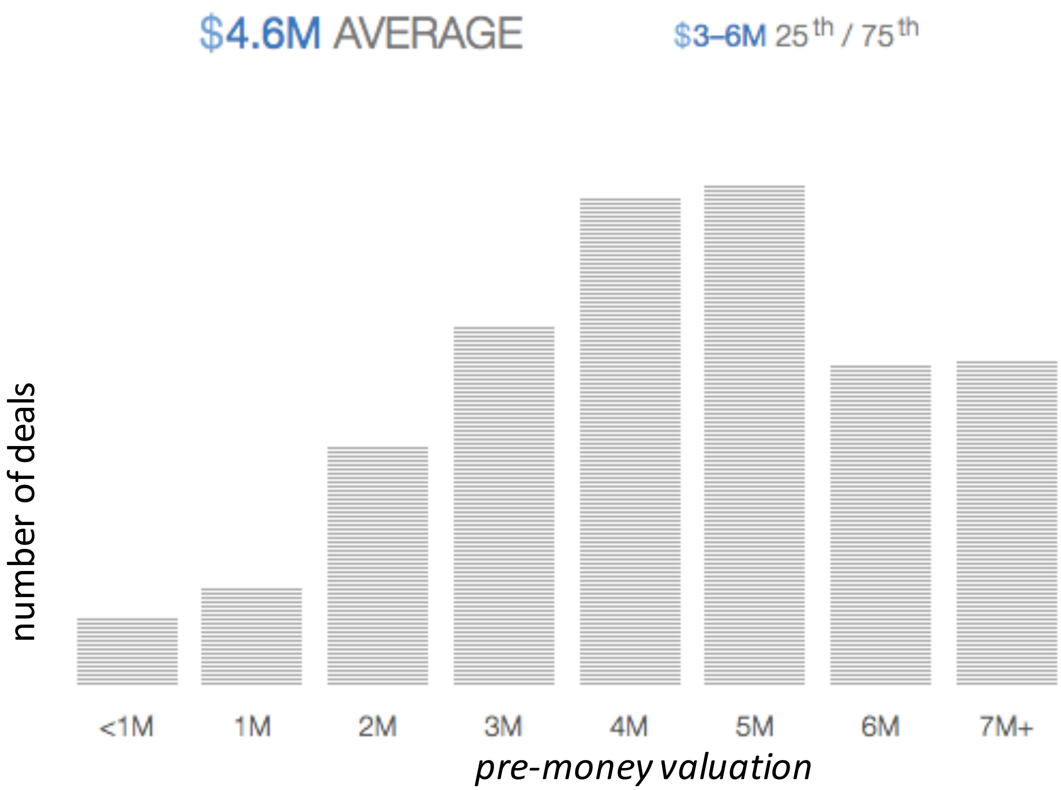
- 6 months of sweat by two recent college graduates. (100,000 USD)
- Cash for initial expenses. (25,000 USD)
- Commitment of two team members to work the next 6 months with no pay – sweat equity. (100,000 USD)
- The idea itself (i.e., the “IP” or *intellectual property*). (25,000 USD)

➔Could logically argue the business is worth 250,000 USD (i.e., an investor who provides the 25,000 USD in seed capital would own 10%)

## 2. Valuation Based on Comparable Deals




All venture deals recorded on Angel List in NYC 2010 – 2015.

Seed stage (less than 2mm raised).

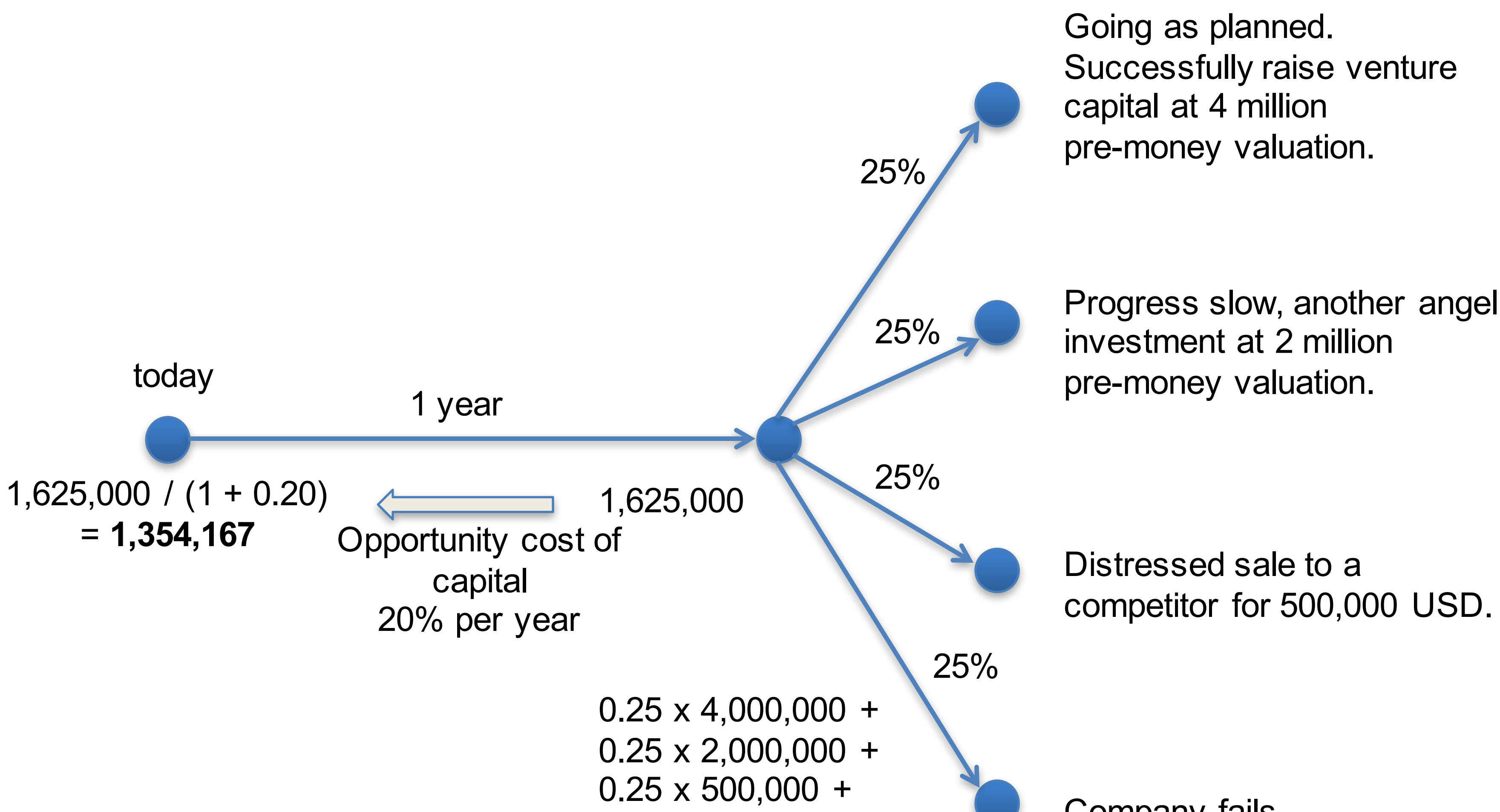
You can filter various ways.

https://angel.co/valuations

## 3. Discounting for Time and Risk Based on Some Future Outcome

- *PWERM* – probability weighted expected return method

1. Define several outcome scenarios for some future date.
2. Estimate the probabilities of those scenarios.
3. Calculate a risk-adjusted *future* value.
4. Discount that value to the present using the investor's opportunity cost of capital.

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(ignores liquidation preferences)

## 4. Valuation Based on Earnings

- For companies with positive cash flow and several years of operating history, can base valuation on earnings.
- Usually use EBITDA (i.e., earnings before interest, taxes, depreciation, and amortization).
- A multiple is applied to EBITDA, but could be 5x or 50x depending on the sector and anticipated growth rate.
- Publicly traded companies in the U.S. are valued at an average of about 15x EBITDA in 2016, but for instance, Amazon is valued at 400x EBITDA!

## Kick the valuation question down the road…

- Convertible notes.
- Investor puts in seed capital as a loan – e.g., 100,000 USD.
- Loan converts to equity when and if an institutional investor (e.g., a VC) provides more capital – e.g., 1 million USD.
- Usually converts at a discount (e.g., 20 percent) and usually has a "cap" of some amount (e.g., 4 million USD pre-money valuation).

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