Business valuation

Startups vs. Traditional companies

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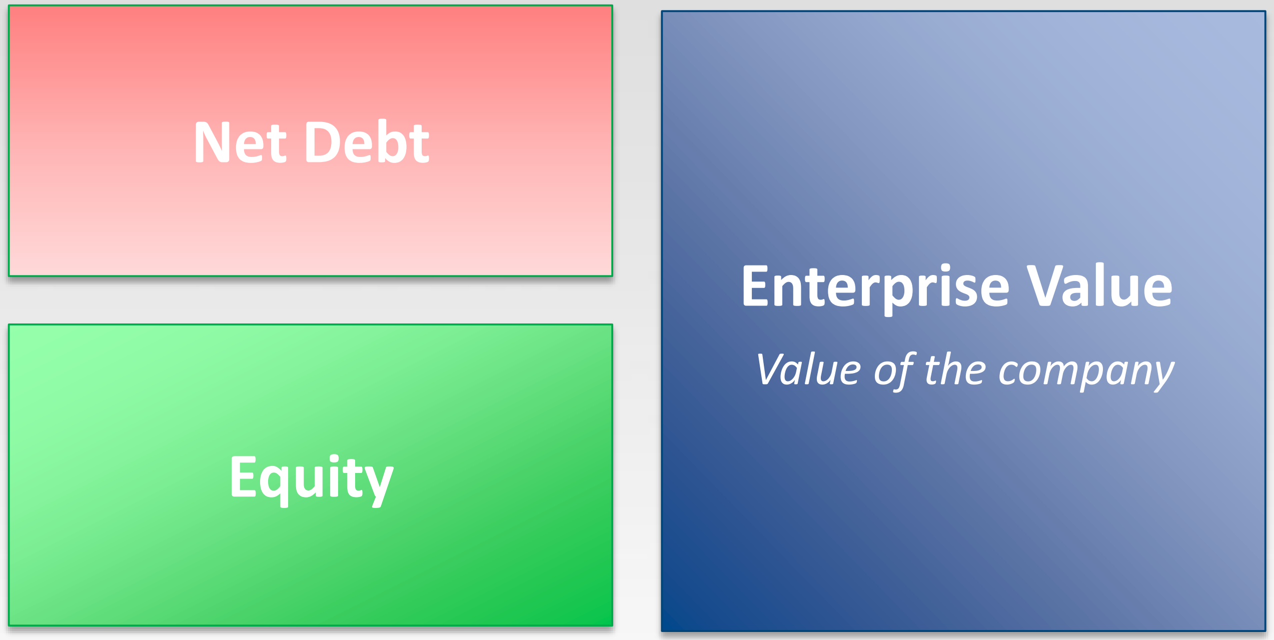
Contents

Valuation Principles

- **Forecast expected operation cash flows** (after tax) generated by the Company **from existing assets**.
- Estimate the **expected growth** from <u>new</u> investments and improved efficiency.
- Assessment when and what will be the company **steady state free cash flow (FCF)** = The Terminal value.
- Assessment of non-operating assets (if relevant).
- Estimate the opportunity **Discount Rate** (reflects the time value of money, market risk, risk of the company, equity risk and Financial leverage).
- **Evaluation** (DCF; NAV; Multiples and comparables, etc.).



Buying a company =

Buying its <u>future</u> cash flows (mostly Dividend)

The Challenges in valuing startup companies (1/3)

1) Absence of historical operation data

- **Lack of a long track record of market position, operation and financial data** makes it difficult to analyze and forecast the FCF (e.g., the revenues' sensitivity to pricing or competition; the expected operational expenses at a steady state stage; and the market position).
- **Significant operational losses** - a combination of small revenues and establishments expenses (HR, R&D) and CAPEX.
- **Absence of comparable companies**.

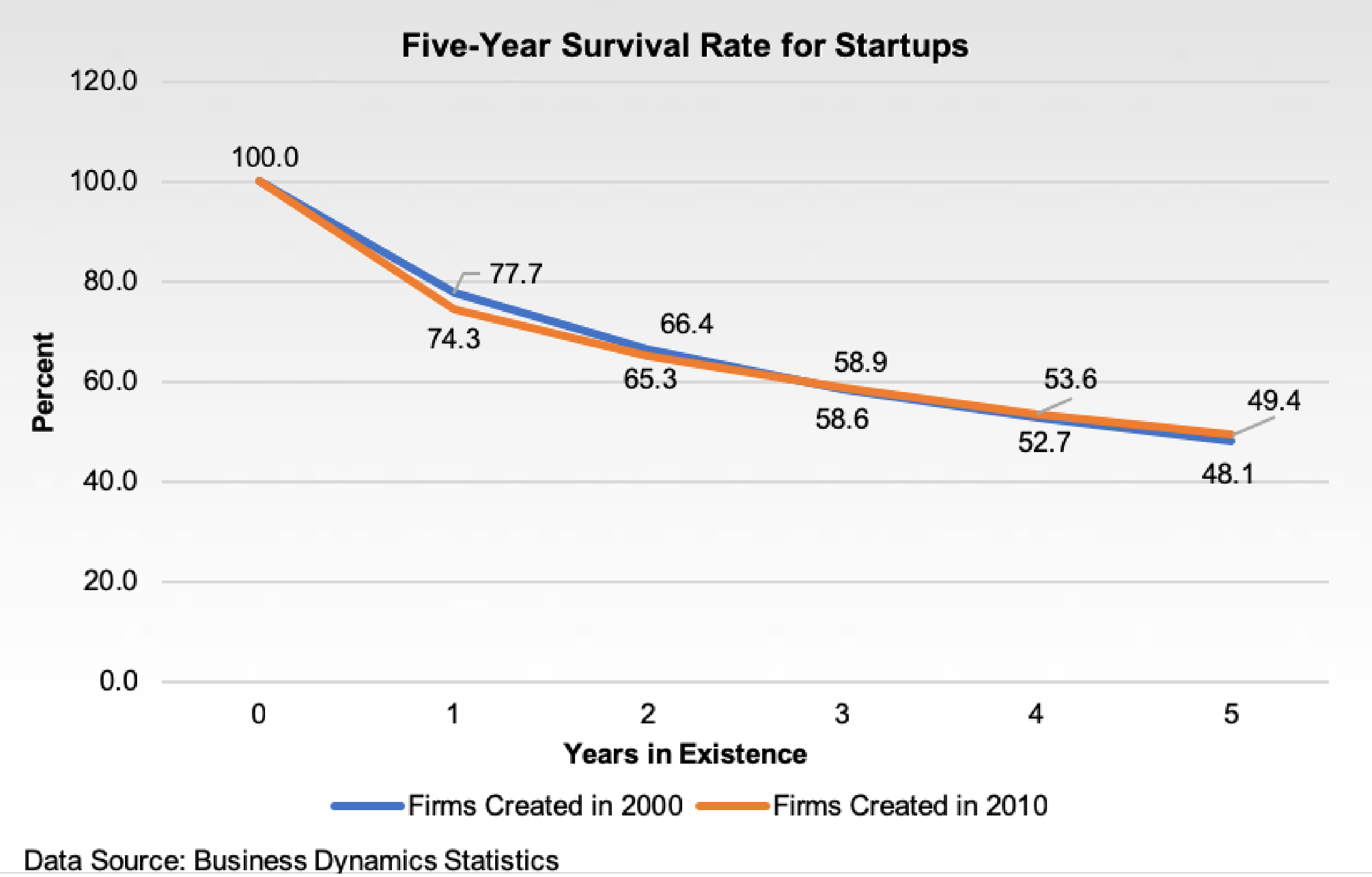
All of the above make it difficult to estimate the venture's future market share, future revenues growth, operational leverage and operating margin.

- **The Terminal Value accounts for a substantial portion of the overall value** (even more than 100%) - Will the venture make it to the steady state phase (going concern)? When? What will be the CF as a mature venture with stable growth?
- As a result of the above, the expected ROE and the "soft" data have a major role in the valuation (how much can we depend on the venture's business plan?) :
  - ✓ Evaluating the team;
  - ✓ The success probability of the initial proof of concepts (POCs) in the pipeline;
  - ✓ How innovative and unique is the technology.

The Challenges in valuing startup companies (2/3)

2) High failure rate + lack of operation data => High Risk => Estimate the expected Discount Rates

- The Discount Rate is a combination of market risk, financial leverage, expected ROE and debt interest.
- The ability to diversify the venture's specific risk is questionable in startups because of the identity of the investors.
- The funding is based on private sources, since there are no market price benchmarks.
- **High probability of failure** - debt irrelevant in most cases + measurement of the <u>Abandonment Option</u>.
- **Illiquidity premium**.
- **Preference liquidation** - multiple private sources are funding the venture at different stages. As a result, there may be:
  (1) differences in control and dividend rights (Facebook, WeWork);
  (2) different ROE to different shareholders (mainly due to a change in a risk profile of the venture).

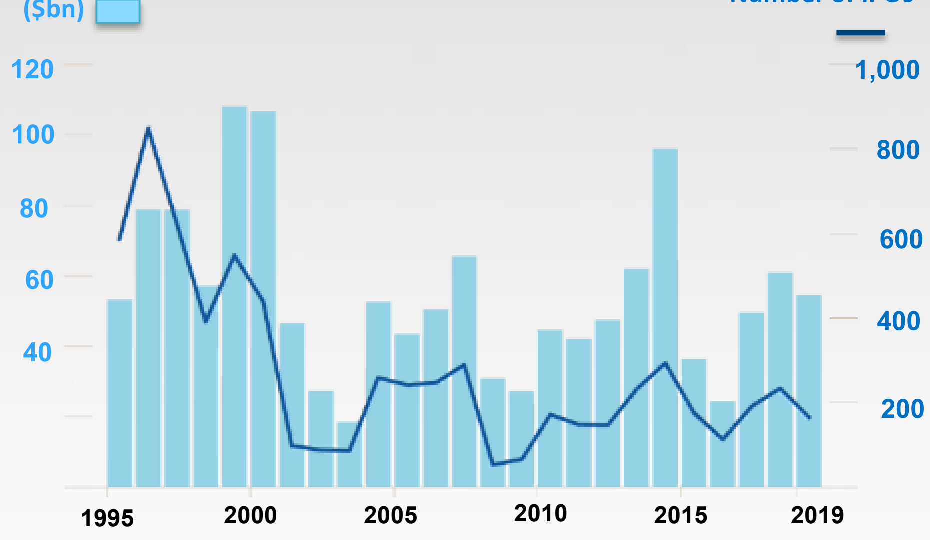


- *Most startups will not survive !*
- *<u>Top causes</u>: no market need; lack of finance; team management problems; pricing; technology lag; poor marketing, etc.*

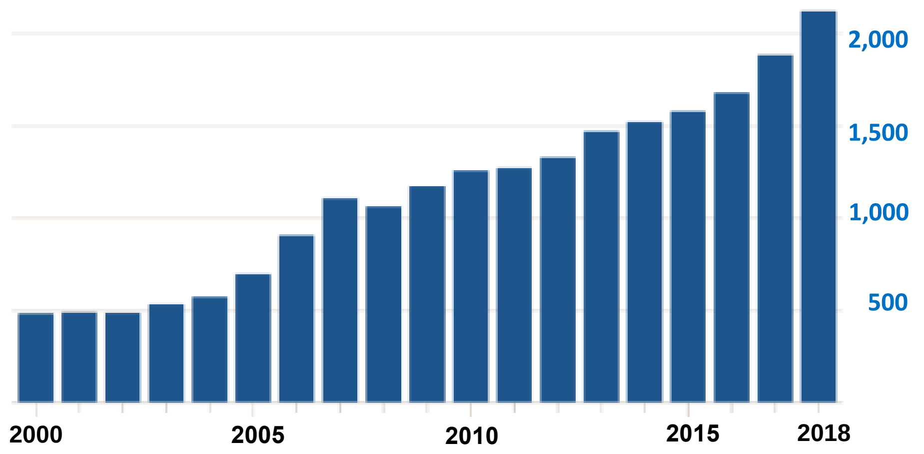
The Challenges in valuing startup companies (3/3)

3) Highly dependent upon private finance sources / The impact of liquidity on fundraising and valuation

- Since the **start of quantitative easing and the over-expansion of money supply** (2009), valuation is now more a matter of supply and demand than of traditional financial parameters (zero interest rate).
- **Shrinking market** - the number of listed companies in the US has halved over the past two decades. The number of new listings shrinks from 600-700 in 2000 to 200 in 2018, while the private equity assets have increased from $500 bn to $2,000 bn in north America.
- More founders, now have both the board votes and the private capital to realise their preference for control, by delaying or avoiding an IPO (VCs and employees are frustrated).
- **Staying private** = less regulation, no transparency, less reporting demands.
- **If you can't beat them…** - as private investing has grown, non-traditional venture investors (e.g., corporate VCs, institutional investors, family offices, mutual funds, hedge funds, etc.) have pledged more capital to the space. As a result, the median deal size for a late-stage U.S. startup reached $400M in 2019, up from $295M in 2018.
- **The non-traditional capital sources most likely to be affected by short-medium term changes in interest rates** (They have alternative investments).



Private equity assets in the 21st century
North America, including venture capital ($bn)



Sources: Dealogic; Preqin, World Bank, FT.

No shortcuts…

Due to challenges of startup valuations, certain analysts are looking for shortcuts in the conventional valuation methodology

- **Focusing only on the "top / bottom line"** (revenues or net income) - ignoring operating margins and investment requirements.
- **Focusing on the short time horizon** - ignoring the estimation of the Steady State CF and the Terminal Value.
- **Increasing the discount rate significantly above the return earned by the investors** to reflect all of their concerns regarding the company's business plan.
- Applying an "Exit Multiple" to the expected revenues/net income after 3-4 years, using multiples of <u>mature</u> publicly traded companies.

We cannot abandon the conventional valuation principles!

Growth is a means. Not a target. Therefore, growth should be translated to value.

We must understand the "STORY" of the venture (the business model) - How does your current strategy lead to sustainable profitability and growth ?

Valuation is a bridge between “story” and numbers

Understanding THE STORY

Market analysis

- Market suitability & needs.
- Target customers.
- Channel of distribution.
- Market segments.
- Product - market fit.
- Growth potential.
- Competitors & market shares.
- Stability of technology / biz.
- Entry and exit strategy.
- Regulation.
- SWOT analysis.

Unit economics

Analyze the basic financial building blocks of a business.

Examples:

- **User,** in social media networks.
- **Subscriber**, in software as a service markets (SAAS).
- **Seat**, in the airline industry.
- **Property**, in real estate (WeWork?).
- **Vehicle**, in automotive - in the future - the end user?

Emphasize the importance of recurring revenues (CLV > CAC)

Financial overview

Summarize the key financial and operating figures throughout the growth phase:

Total Revenue; Gross income; Operating Income; CAPEX; R&D expenses; Net Income.

Value Drivers

- **Economies of scale**

  The marginal [CLV – CAC] increases in scalability.

- **Economies of scope**

  CAC is approximately zero, when you expand to new segments of products / services to an existed user.

- **Network effects**

  [CLV – CAC] grows more (in %) than the growth (%) in the number of users

- **Barriers to entry**

Valuation of high growth customer-based ventures

Enterprise Value = **Value of Existing Users** + **Value of new Users** − **Corporate Expenses**

Revenue model

- subscription fees;
- advertising;
- transactions fees.

Major assumptions

- User life;
- Renewal rate;
- Current CF (contribution);
- Growth;
- Risk - Discount rate.

*Same variables drivers as the value of an existing user, plus **Acquisition cost**.*

Fundamental rule:

CLV > CAC

The effect of operating leverage

Source: Prof. Damodaran

Value Drivers (1/2)

Economies of Scale

- Sufficient volume of production to massively reduce marginal costs, so the largest player can maintain the best margin of profitability.
- Operating leverage is becoming an asset in a growth model (disadvantage in a mature company such as offline retailer).
- The carrot and the stick: growth will create a much bigger boost for earnings. The same is true for the downside.
- Example: Netflix vs. Spotify.

Economies of Scope

- Benefits achieved by offering more than one product or service through the same organization, to support the growth model.
- Enable cross-selling.
- Double-edged sword - accrue only to companies that identify and capture synergies while simultaneously managing the risk of added cost complexity.
- Examples: Apple, Amazon.

Barriers to entry

- Mechanism that imposes a cost element on new entrants.
- Main Sources (natural or artificial):
  - ✓ Economies of scale;
  - ✓ Product differentiation (IP);
  - ✓ Capital requirements;
  - ✓ Brand;
  - ✓ Switching costs;
  - ✓ Distribution channels;
  - ✓ Government policy.
- Example: Netflix vs. WeWork.

Network effect

- More usage of the product by any user increases the product's value for other/all users.
- Generate greater value for the marginal increase in cost - the cost increases but the product value increases more.
- Value increases exponentially - costs increase linearly.
- Create network effects by connection platform (Facebook) or content platform (Instagram).
- Example: Amazon vs. eBay.

Value Drivers (2/2)

	Economies of Scale	Economies of Scope	Network effect	Barriers to entry
facebook	✓	✓	✓	✓
NETFLIX	✓	✗	✓ ✗	✓
we	✗	✗	✗	✗

Summary

No doubt the <u>market is not in equilibrium in recent years</u> due to:

1) Shrinking public markets - as private investing has grown, institutional investors have pledged more capital to space, looking for high returns.
2) Influx of funds and liquidity.
3) Inconsistent valuation practices between traditional methods and "VC type valuation". It seems that valuation has become more a matter of supply and demand than of traditional financial parameters.

This has led to a series of phenomenon with high growth startups

1) Startups that have exhausted their growth opportunities and were able to reach profitability, choose to remain private (IronSource, Taboola + Outbrain, Payoneer, Palantir Technologies).
2) Startups are encouraged to pursue "growth at all costs".
3) Startups choose to stay in their comfortable zone - "*story telling*" mode, as long as possible, in order <u>not</u> to be evaluated under traditional methods.
4) When eventually the traditional valuation model meets the "growth at all costs" model, we witness extreme changes in value, while the business remains virtually the same (WeWork has lost approximately 90% of its value).

It was all about "growth at all costs". It should be about "<u>sustainable growth</u>" - it is not the size that matters, but how you use it to create <u>sustainable value drivers</u>