

## VALUATION

### The Venture Capital Perspective

**In valuing investment propositions, venture capital firms usually apply steep discount rates to accommodate high risk assumed. This approach seems problematic.**

Applying traditional valuation approaches on start-ups are not working well or not at all: Book values, to begin with, seem useless, as the principle value of a start-up is the new idea and its intended implementation, with both these aspects not to be found in a firm's balance sheet. - Neither does applying the liquidation value approach make much sense, because there won't be much in a start-up to liquidate: The idea and its implementation is eventually all embedded in the individuals driving the venture. Once they leave, most of the value of the start-up disappears.

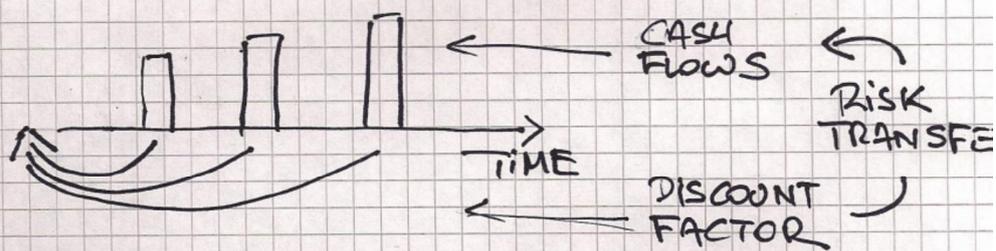
Applying the Discounted Cash Flow (DCF) approach may work, at least theoretically, as a start-up could be assessed on the basis of future expected cash flows, such as any other investment opportunity. Having said this, the ultimate challenge in applying this approach is how to deal with the high failure rate and – hence – risk profile of early-stage corporates: The most common answer to tackle this aspect is by (substantially) increasing the applied discount factor by adding a so-called early-stage risk premium. This often results in discount factors of up to two, three or even four times the value of the cost of equity applied for mature firms. (Note: Start-ups are usually equity-funded only anyway). This (substantially) higher discount factor should – as is assumed – fairly represent and reflect the steep return expectations of investors in early stage firms, such as angel and venture capital investors. Investors justify these expectations with the exposure to the high business risk assumed for investing in a largely untested product, market environment and also management team. - Whilst this approach is nowadays widely accepted and applied, it appears at the same time not very sophisticated: Not only that the discount factor seemingly serves as a “dumping ground” for not further analyzed risks. On top, the premium is frequently by an excessive amount which is neither further substantiated nor can be justified.

Hence, the key concern in applying the DCF approach in regards to early stage firm is to adequately reflect and appropriately allocate the high degree of business and implementation risk: In that regards, one way is to shift risk from the discount factor towards future expected cash flows. That can be done by building different cash flow scenarios, reflecting different (more or less likely) outcomes. However, these will need to be weighted, and attaching probabilities to each scenario may prove to be cumbersome. - An alternative approach could be the introduction of probabilities reflecting the likelihood of a start-up to survive year by year, with this survival rate expected to increase over time. Eventually both these approaches would help transferring risk away from the discount factor, which could then be brought back to much more reasonable levels. – Nevertheless, the difficulty in applying the DCF approach in regards to start-up is – such as its weakness in general – that the bulk of the value of a firm lies eventually in the residual value, somewhere far out in the future.

In practice, the Venture Capital Method is widely applied: Thereby, the investor assumes a selling price for a full sale of the company (with the terminal value based on an assumed exit multiple), a figure referred to as the post-money valuation. Applying on this figure an anticipated return on investment for the investor – usually in yield corridor of between 20-40% - the post-money valuation is discounted back to today's assumed value. Deducting from that amount the cash investment made by the investor gives the investment's pre-money valuation. – As many start-ups are financed through subsequent funding rounds, a further (dilution) factor could be applied accounting for the anticipated dilution of the investor, which may range from anywhere of between 80-20%.

Additional, less popular (and equally cumbersome to implement) valuation approaches for start-ups are - among others: Berkus Method (attributing values to the progress a start-up has made in commercializing activities), Score Card Valuation Method (as an adjustment of pre-value valuations along certain characteristics of a firm), or Risk Factor Summation Method. – Various multiple approaches are also applied, foremost in regards to previous similar, comparable transactions completed.

# DCF FOR START-UPS



# VENTURE CAPITAL METHOD

