



PwC's Private Capital Engine

Advanced Start-up Valuation & Waterfall Simulation Made Simple

Valuation Obstacles and Approach

Valuing early-stage companies is complex because traditional valuation methods often fall short, especially for businesses with limited financial history or ambitious growth plans.

A more suitable approach is to consider the prices paid for shares during different financing rounds as well as their specific rights and preferences, as these reflect a fair value indication for specific share classes.

Over time, a complex capital structure emerges, which can be addressed using the OPM Backsolve method.

OPM Backsolve

OPM Backsolve is an internationally well accepted valuation method for a start-up company in order to determine not only the total equity fair value but also the fair values of the different share classes. The model logic can be divided into two parts: **the Black-Scholes Option Pricing Model (OPM)** and **Backsolve**.

Step 1

The waterfall scheme is modelled: OPM allocates the company's total equity value across all equity instruments according to the capital structure and defined rights and preferences.

Step 2

Potential exit values are simulated while simultaneously the total equity value is back solved in a way that the resulting fair value per share for the latest share class equals the price paid.

PwC's Web App Solution

To address these challenges, PwC has developed a powerful digital solution: Private Capital Engine. Unlike traditional Excel models, our web-based solution is designed for **speed, accuracy, and ease-of-use**:



- **Instant Calculations** – Results generated in seconds
- **No Modelling Skills Required** – Intuitive user interface
- **Minimized Error Risk** – Automated processing reduces manual mistakes
- **Real-Time Updates** – Model and scenario adjustments on the fly
- **Effortless Waterfall Simulations** – From basic to highly complex capital structures
- **Instant Valuation of Equity Instruments** – Total equity and all equity instruments simultaneously
- **Connection to PwC's Peer Group Insights** – For semi-automated smart peer group research analysis
- **Professional Reports** – Auto-generated and ready for download for documentation purposes

Exemplary Areas of Application

- ✓ Start-up valuation (fair value analysis)
- ✓ Underlying valuation for Management/Employee Incentive Programs for tax purposes or IFRS 2 for audit purposes
- ✓ Valuation of an (VC or PE) investor's shareholdings
- ✓ Waterfall scheme modelling & simulation

Get in touch



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Additional Information

OPM Backsolve methodology relies on the IPEV and AICPA guidelines.