

Financing for Start-Ups

Professor: Filippo Ippolito
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Objectives

1. Assess investment choices in the context of an entrepreneurial firm
2. Examine different financing choices for entrepreneurial investments
3. Learn how to estimate cash flows and the cost of capital for the purpose of investment valuation
4. Learn how to identify real options in entrepreneurial investments
5. Value real options in entrepreneurial investments

Description

This course examines how investment decisions are made in entrepreneurial firms. We look at an entrepreneur that must decide which investments to make and how to finance them. The investment decision requires the estimation of future cash flows, and an analysis of the risks involved in the investment process. The financing decision is about mixing optimally internal and external sources of finance, and issuing optimally designed securities in exchange for external capital.

The course contains a theory part on the valuation of investments under uncertainty. This part develops the conceptual tools that are at the core of both the investment and financing decisions. The theory of valuation is examined using two methodologies: discounted cash flows and real options. The first approach is the standard workhorse for valuation, and offers a thorough insight into how the value of an asset is computed. However, the discounted cash flows approach ignores two common features of entrepreneurial investments: first, investments are often partially or completely irreversible, and, second, investments can often be delayed to a later time in the future. The valuation approach based on real options is complementary to the discounted cash flows approach, and accounts explicitly for investment irreversibility and for the optimal timing of the investment decision.

The above theory is complemented by the practical examination of several case studies, through which students can assess how investment decisions are made in real entrepreneurial firms. The focus of the cases is varied. In some cases we take the point of view of the entrepreneur. In other cases, we examine the value of an investment from the perspective of a venture capitalist that wants to invest in an entrepreneurial firm. In other cases, we look at issues like that of taking the firm to an IPO and selling equity to the wider public.

Contents

- > Estimating the cost of capital for an entrepreneurial firm
- > Estimating cash flows
- > Estimating growth
- > Estimating terminal values

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- > Choosing across different DCF models
- > Relative valuation
- > Decision trees
- > Real options: delay, expand, abandon, switch
- > Black and Scholes model

Methodology

A mix of lectures and case studies with class discussion

Evaluation criteria

- > Participation in class: 50%
- > Final Exam: 50%

Bio of the professor

Filippo Ippolito is an Associate Professor of Financial Management at Pompeu Fabra University and a research affiliate at the Centre for Economic Policy Research (CEPR), London, and at the Barcelona Graduate School of Economics. He holds a PhD in finance from Said Business School, Oxford, and an MPhil in Russian and Eastern European Studies from the University of Oxford. In the past he has worked in the financial and consulting sectors. His research focuses on corporate debt, capital structure, corporate liquidity management and private equity. Prof Ippolito has published in the Journal of Finance, Journal of Financial Economics, Journal of Financial Intermediation, and Journal of Corporate Finance.