

## **ENTREPRENEURIAL FINANCE: *Strategy, Valuation, and Deal Structure***

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The book provides students an understanding of the economics of entrepreneurial finance and private equity, especially venture capital. It proceeds by first addressing financing and strategic issues faced by entrepreneurs in the early stages of a firm; financial modeling is then used to determine how much money can and should be raised and from what source; applications of valuation techniques are presented and evaluated, followed by analyses of deal structuring, negotiation, and the exit decision. Specific topics include: methods of valuing private firms; simulation to make better strategic choices; business plans; economics of contracts that underlie new venture finance (venture capital partnerships agreements, term sheets, etc.); financing sources; creating value through financing contracting; and exit strategies (initial public offerings, merger, other).

In contrast to other books on the topic, we have benefited from the comments and suggestions of a number of practitioners who have contributed to the book's choice of topics, sequencing of topics, and specific applications and examples. A number of entrepreneurs, angel investors, and venture capitalists have either taken a course based on the book or worked through the book independently.

### **Guide to Website Resources**

This website includes sets of materials for students and for instructors. Student resources include chapter learning objectives, end-of-chapter problems, interactive cases, and a variety of other items. These can be accessed openly through links on the website. Instructor resources are password protected and include such things as PowerPoint presentation files, solutions to end-of-chapter problems, and interactive case teaching notes. Generally, you can download these materials chapter by chapter or in a single file that includes all chapters. For the benefit of other users of the book, we ask that you not post any of these protected materials on an unsecure website or in a format that would enable students to download them and post them.

### **Detailed Book Outline**

The website contains a more detailed outline of the book. The detailed outline can be helpful for deciding which parts of each chapter you would like to emphasize and whether there are parts you wish to skip.

### **Suggested Course Outlines and Course Plans**

The book is appropriate for MBA, Executive MBA, and undergraduate students who have background coursework in microeconomics, finance, statistics and financial accounting. The website includes tutorials that can supplement necessary background, including tutorials on: basic statistics, options, integrating financial statements, and mathematics of time value. Follow this link to access the tutorials library.

Because every instructor will employ different teaching methods and have particular topics that they want to cover in detail, we suggest below several types of courses that can be designed, using the book *Entrepreneurial Finance* as the base. We identify key chapters for each type of course. The chapters can be combined with chapter-specific problems, customized interactive cases, standard cases, and business plan or other term projects so that the instructor can tailor-make a course that accommodates either semester or quarter schedules, or alternative executive education schedules.

For those interested in teaching with problem sets, the end-of-chapter review questions provide a means of focusing attention on key chapter concepts. The website provides more demanding questions and problems to go with each chapter. Normally these questions and problems start with some simple, narrowly focused, problems that closely parallel examples in the chapter. Higher numbered problems tend to be more integrative and challenging. They may require the student to extend reasoning from the chapter or to integrate learning from several chapters. A number of these problems require the use of simulation. We designate the problems that require simulation with a symbol. In some cases, these problems can require significant amounts of time for a student to complete. Problems and questions are particularly important for reinforcing concepts and sometimes requires students to use excel. Students should understand that the material is best mastered by completing problems and cases that reinforce “learning by doing.” You can access and download the end-of-chapter questions and problems on the website.

For those who use case-method teaching, we offer two types of resources. First, we provide Interactive Cases (and teaching notes) that are customized to the chapters. Second, we provide a list of Published Cases that go well with *Entrepreneurial Finance*.

Most chapters have at least one interactive case option. Most of the cases are based on real ventures, however, we usually disguise the identity so that we can provide more substantive content and to make them timely. We refer to these as interactive cases because the case file often includes downloadable excel workbooks that can be downloaded by students and modified by them to address the issues in the case. Some of these cases do have specific “solutions”. Case files include a teaching note, which may include one or more excel files and a PowerPoint file. The website includes a brief synopsis of each case. The synopsis, and individual interactive case files can be accessed and downloaded through the website.

A number of published cases complement the material in the chapters. A list of cases that are suitable for each chapter can be found on the website. This list is not all-inclusive. We have tried to emphasize some of the more recent published cases.

Some of the following material may be useful for designing a course outline:

### **Students who will benefit most from the course**

- (1) Students who are involved, or aspire to be involved, in entrepreneurial ventures will learn how to identify opportunities with the potential to be successful, how to structure the opportunities to maximize the probability of securing financing, and how to structure the deal to best suit their objectives.

- (2) Students who aspire to be involved in venture capital or angel investing will learn to assess the merits of investment opportunities, and to create value by linking financing choices to key strategic decisions, and how to analyze the harvesting of the investments.
- (3) Students who aspire to careers in venture capital, social venturing and corporate venturing will learn how to use elements of deal structure to create value for all parties involved and how to create successful opportunities when the parties disagree about the prospects of the venture.
- (4) Students who are interested in public policy issues related to entrepreneurship and economic development will learn what current research tells us about the impact of policy and develop an appreciation for international differences in institutions related to venture capital and entrepreneurial finance and differences in the types of approaches adopted to encourage entrepreneurship.

### **Entrepreneurial Finance: Learning Objectives**

In general, we find that students gain the most from the course if there is a clear articulation of the course learning objectives. Moreover, clear articulation of learning objectives can provide useful context for assessment of learning. Each chapter includes a list of learning objectives (see the website). We recommend that the course syllabus include an explicit delineation of course learning objectives. The following list is comprehensive and appropriate for many courses, but can also be used as a starting point for a customized list.

- Understand the implications of the important differences between new venture finance and corporate finance (finance of large public corporations)
- Think about the business plan in terms of its purposes and recognize the importance of careful financial modeling and strategic planning
- Be able to describe the various sources of funding for new ventures (venture capital, angel capital, private equity and many others) and evaluate which of the choices are feasible in the particular setting
- Understand the organization of the venture capital industry and the economics underlying the contracts that are used in the industry
- Appreciate the importance of real options and milestones in new venture development and think about them in terms of decision trees that are tied to important milestones
- Learn the basics of financial modeling, the importance of grounding the model in well-documented assumptions, and learn how to use the model to assess cash needs

- Learn to value new venture opportunities using state-of-the art valuation methods and understand how these methods relate to the financial economic theory that you have learned in corporate finance (methods covered include the Venture Capital method, First Chicago method, discounted cash flow using either risk-adjusted discount rate or certainty equivalent approach, relative value).
- Appreciate the differences in value to an underdiversified entrepreneur compared to a diversified investor and learn how to exploit the differences to design investment agreements.
- Learn why harvesting is the essential focus of the initial investment decision and understand the costs and benefits of the various exit alternatives, including IPO and merger.
- Evaluate the institutional questions surrounding why entrepreneurship has been a successful engine of economic growth in some countries and geographic locations but less so in others. International differences in institutions that underlie entrepreneurial finance will be discussed throughout the course.

### **A Note on Simulation Software**

Given the importance of risk and uncertainty to entrepreneurial finance, we use simulation throughout the book. Illustrations and discussion in the book, as well as PowerPoint files, are based on our proprietary software, Venture.SIM. Instructors and students can download and use Venture.SIM, which is an Excel-based application. Crystal Ball and @RISK provide similar functionality and can be used in lieu of Venture.SIM. Some colleges and universities have site licenses to the latter two commercial simulation software packages. For simulation-based figures, templates, and problem solutions, we provide downloadable files that are compatible with each simulation software program. The user can evaluate which software package is most appropriate. The distinction is that Venture.SIM is more focused on the types of simulations that are likely to arise in new venture finance, and in that sense, is user-friendly for both students and faculty.

Venture.SIM can be downloaded from the website.

### **Types of Courses that Can be Designed using *Entrepreneurial Finance: Strategy, Valuation and Deal Structure***

We have found the book to be useful for the following types of courses. Each course can be combined with an assignment such as a term project that requires presentation of a business plan. Suggestions for how to do so appear in the “notes” following each course plan.

#### **❖ Course 1:**

## **Entrepreneurial Finance: Financial Forecasting, Modeling, and Valuation**

*Entrepreneurial Finance* can be used as the core of a course that emphasizes developing a comprehensive financial forecast for a venture, incorporating the forecast into an integrated pro forma financial model of the venture, and then using the model to assess cash needs and to value the opportunity. Core chapters for this course are those in Parts 3 and 4. The earlier chapters in the suggested outline provide important context. An appropriate term project for this type of class is the construction of an integrated financial model based on limited analysis of the assumptions underlying the model, and use of the model to assess cash needs and use of cash flow projections in a valuation.

### **Key Chapters**

#### Part 1: Getting Started

Chp. 1 Introduction

Chp. 2. New Venture Financing: Considerations and Choices

Chp. 3 Venture Capital

#### Part 2: Financial Aspects of Strategic Planning

Chp. 4 New Venture Strategy and Real Options

Chp. 5 Developing Business Strategy Using Simulation

#### Part 3: Financial Forecasting and Assessing Financial Needs

Chp. 6 Methods of Financial Forecasting

Chp. 7 Methods of Financial Forecasting: Integrated Financial Modeling

Chp 8 Assessing Financial Needs

#### Part 4: Valuation

Chp. 9 Foundations of New Venture Valuation

Chp. 10 Valuation in Practice

#### Part 5: Information, Incentives, and Financial Contracting

Chp. 12 Deal Structure: Addressing Information and Incentive Problems

❖ **Course 2:**

**Entrepreneurial Finance: Strategic Planning and the Business Plan**

*Entrepreneurial Finance* can be used as the basis for a course that emphasizes rigorous approaches to developing new venture strategy and developing the financial components of the business plan for a for-profit or social venture. For this focus, the chapters in Part 2 provide foundation for rigorous strategic planning and Part 3 covers the financial forecasting modeling that is needed to construct defensible financial projections that can be used to assess cash needs. The contracting discussion in Part 5 provides important conceptual considerations that an entrepreneur would need pay attention to in developing the business plan. The plan probably will not include a formal valuation, but the entrepreneur must be cognizant of how investors are likely to value the opportunity. An appropriate term project for this type of class is preparation of the financial portions of a business plan, including development of the new venture strategy, construction of an integrated financial model based on limited analysis of the assumptions underlying the model, and use of the model to assess cash needs.

**Key Chapters**

Part 1: Getting Started

Chp. 1 Introduction

Chp. 2. New Venture Financing: Considerations and Choices

Part 2: Financial Aspects of Strategic Planning

Chp. 4 New Venture Strategy and Real Options

Chp. 5 Developing Business Strategy Using Simulation

### Part 3: Financial Forecasting and Assessing Financial Needs

Chp. 6 Methods of Financial Forecasting

Chp. 7 Methods of Financial Forecasting: Integrated Financial Modeling

Chp 8 Assessing Financial Needs

### Part 4: Valuation

Chp. 9 Foundations of New Venture Valuation

Chp. 10 Valuation in Practice

**Notes:** This type of course works well with assignment of problems and interactive cases available on the website.

### ❖ **Course 3:**

## **Entrepreneurial Finance: Venture Capital, Financing Sources, and Harvesting Choices**

Entrepreneurial Finance can be used as the core of a relatively nontechnical course that is focused on the institutions of new venture finance from bootstrap financing through harvesting by IPO, acquisition, or other means; on the choice of financing at different stages of development; and on the complexities of deal structure. Core material for this approach is in Parts 1, 5, and 6. We recommend including the more basic chapters on valuation, for Part 4, as these are important considerations in the financing choice. The course can be nontechnical, with emphasis on basic questions and problems and on published cases.

### **Key Chapters:**

#### Part 1. Getting Started

Chp. 1 Introduction

Chp. 2 New Venture Financing: Considerations and Choices

Chp. 3 Venture Capital

#### Part 4. Valuation

Chp. 9 Foundations of New Venture Valuation

Chp. 10 Valuation in Practice

Part 5: Information, Incentives, and Financial Contracting

Chp. 12 Deal Structure: Addressing Information and Incentive Problems

Chp. 13 Value Creation and Contract Design

Chp. 14 Choice of Financing

Part 6. Harvesting and Beyond

Chp. 15 Harvesting

**Notes:** This type of course works well with case supplements. See suggested Published Cases listed by chapter.

❖ **Course 4:**

**Entrepreneurial Finance: Valuation and Deal Structure**

*Entrepreneurial Finance* can be used as the basis for a course that is focused on valuation and contracting between the entrepreneur and investors. Such a course can skip the chapters on strategy and financial modeling (acting as if the strategy had already been developed and the pro forma statements had been developed). The valuation exercises could then be focused on a simplified model of future revenue and cash flow. This approach is centered around full coverage of Parts 4 and 5. This type of course is best taught using some of the more challenging problems from these sections and some of the interactive cases related to chapters in these sections.

**Key Chapters**

Part 1: Getting Started

Chp. 1 Introduction

Chp. 2 New Venture Financing: Considerations and Choices

Chp. 3 Venture Capital



#### Part 4: Valuation

Chp. 9 Foundations of New Venture Valuation

Chp. 10 Valuation in Practice

Chp. 11 Underdiversification and the Entrepreneur's Perspective on Value

#### Part 5: Information, Incentives, and Financial Contracting

Chp. 12 Deal Structure: Addressing Information and Incentive Problems

Chp. 13 Value Creation and Contract Design

Chp. 14 Choice of Financing

#### Part 6: Harvesting and Beyond

Chp. 15 Harvesting

Chp. 16 the Future of Entrepreneurial Finance: A Global Perspective

### ❖ **Course 5:**

#### **Entrepreneurial Finance: Financial Modeling, Real Options, Simulation, and Valuation**

*Entrepreneurial Finance* can be used as the basis for a course that is focused building and using financial models to evaluate ventures that incorporate important real options and to design strategies around creation, exercise, and abandonment of real options. Such a course necessarily has important financial modeling and valuation components. The course draws heavily from material in Parts 2, 3, and 4 of the book. Parts 1 and 5 are relevant but can be de-emphasized. The valuation exercises in this course should be focused on a fully integrated model of venture cash flows, including explicit assumptions about risk. This type of course is best taught using some of the more challenging problems from these sections and some of the interactive cases related to chapters in these sections.

## **Key Chapters**

### Part 1: Getting Started

Chp. 1 Introduction

Chp. 2. New Venture Financing: Considerations and Choices

Chp. 3 Venture Capital

### Part 2: Financial Aspects of Strategic Planning

Chp. 4 New Venture Strategy and Real Options

Chp. 5 Developing Business Strategy Using Simulation

### Part 3: Financial Forecasting and Assessing Financial Needs

Chp. 6 Methods of Financial Forecasting

Chp. 7 Methods of Financial Forecasting: Integrated Financial Modeling

Chp 8 Assessing Financial Needs

### Part 4: Valuation

Chp. 9 Foundations of New Venture Valuation

Chp. 10 Valuation in Practice

Chp. 11 Underdiversification and the Entrepreneur's Perspective on Value

### Part 5: Information, Incentives, and Financial Contracting

Chp. 12 Deal Structure: Addressing Information and Incentive Problems

Chp. 13 Value Creation and Contract Design

Chp. 14 Choice of Financing

## **❖ Course 6:**

### **Entrepreneurial Finance: Strategy, Valuation, Deal Structure**

*Entrepreneurial Finance* can be the basis for a comprehensive course that covers all aspects of financing a new venture, ranging from developing the strategy, modeling the venture, assessing cash needs, valuation, and structuring the deal with investors. Such a course would include coverage of the standard financing

sources from early stage through exit. This type of course is best taught using some of the more basic problems, a mixture of published and interactive cases, and is well suited for a term project such as preparing the financial aspects of a business plan.

### **Key Chapters**

#### Part 1: Getting Started

Chp. 1 Introduction

Chp. 2. New Venture Financing: Considerations and Choices

Chp. 3 Venture Capital

#### Part 2: Financial Aspects of Strategic Planning

Chp. 4 New Venture Strategy and Real Options

Chp. 5 Developing Business Strategy Using Simulation

#### Part 3: Financial Forecasting and Assessing Financial Needs

Chp. 6 Methods of Financial Forecasting

Chp. 7 Methods of Financial Forecasting: Integrated Financial Modeling

Chp 8 Assessing Financial Needs

#### Part 4: Valuation

Chp. 9 Foundations of New Venture Valuation

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Chp. 12 Deal Structure: Addressing Information and Incentive Problems

Chp. 13 Value Creation and Contract Design

Chp. 14 Choice of Financing

Chp. 15 Harvesting

#### Part 6: Harvesting and Beyond

Chp. 16 the Future of Entrepreneurial Finance: A Global Perspective