History abounds with examples of extraordinary entrepreneurs whose new ideas and products have changed the world. Many people are enamored with the idea of creating new products and starting businesses. Accompanying the interest in venture creation, there is broad interest in venture capital, in investment banking, and in careers related to new venture financing, deal structuring, and harvesting.

Our primary motivation for writing this book is to empower students and practitioners to be more successful in developing and financing their ideas. Our overriding orientation is to apply the theory and methods of finance and economics to the rapidly evolving field of entrepreneurial finance.

This book is unique several ways. First, it builds on and significantly extends the tools and methods of corporate finance and financial economics to approach the difficult and important financial problems associated with starting and growing new ventures. Building on the foundations of financial economics makes the lessons more general and memorable and the applications easier to implement in varied settings. Mastery of the framework facilitates clearer and more defensible evaluation of different opportunities and choices than is possible on the basis of heuristics and intuition. With reliable and rigorous tools, you can be more confident that the decisions you make will be the right ones.

Second, while many books address aspects of entrepreneurship (writing business plans, leading and managing new ventures, etc.), this book has a unique and direct focus on the question of how new venture financing choices can add value and turn marginal opportunities into valuable ones. We emphasize value creation as the objective of
each financial choice that an entrepreneur or investor makes—issues of strategic planning, staging, valuation, deal structure, risk and diversification, choice of financing, and exit. Understanding how each choice affects value has the potential to add tremendous value to ideas and innovations.

Third, in contrast to other books on entrepreneurial finance, we specifically address the influences of risk and uncertainty on new venture success. We use discrete scenario and simulation analysis throughout the book to evaluate alternative strategies, to assess financial needs, to assess risk and expected cash flows as elements of valuation, and to compare different deal structures and contract terms.

Fourth, because assessment of cash needs and valuation both depend on projections of cash flow, we devote significant attention to methods of forecasting the pro forma financial statements of new ventures in an integrated fashion. Integration enables the entrepreneur or investor to use financial forecasting to conduct scenario analysis and to simulate such things as how cash needs are affected by growth rates that are faster or slower than expected.

Fifth, we provide a comprehensive survey of approaches to new venture valuation with an emphasis on applications. Our approach to valuation is more comprehensive than most because we approach valuation from a contracting perspective that is affected by the different assessments of the entrepreneur and the investor. We recognize that the entrepreneur’s unique circumstances can lead to value conclusions different from those of a well-diversified investor.

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**Why Study Entrepreneurial Finance?**

Whether you are or see yourself as an entrepreneur, a corporate financial manager dealing with new projects, a venture capitalist, or a social entrepreneur, a solid understanding of entrepreneurial finance can help you make better decisions. Couple this with the estimate that over 50 percent of new businesses fail within a few years, and the value of understanding new venture finance becomes clear. Perhaps more telling is that while some businesses do survive, the entrepreneur may not. Nonfounders are appointed CEO within a few years of operation in the majority of venture capital–backed start-ups.

How can the hazards and pitfalls of forming new ventures be avoided or mitigated? We believe the answer is to understand the financial economic foundations and use the best available decision-making tools and
methods. A new venture should not be undertaken unless the expected reward is high enough to compensate for the value of forgone opportunities. Investing personal resources and time in a venture that should never have been pursued is just as serious an error as failing to invest in a good venture. Throughout the book, we reiterate and demonstrate through examples that this tradeoff of risk and return is not easy to assess intuitively. Rather, this is an area where analytical rigor can add considerable value.

Even the best initial projections, however, can prove to be overly optimistic as the future unfolds. It is important to base the decision to continue or abandon a venture on the same kind of rigorous analysis that was used in making the original decision. It is all too easy to continue investing time and resources in a venture that is destined for mediocre long-run performance or to give up on a venture that has experienced a temporary setback but still offers the potential for substantial gain.

Finally, it is a rare individual who is good at both recognizing an opportunity and managing the venture to capitalize on that opportunity. Careful design of the organization and its relations at the outset helps assure that a venture does not fail just because the visionary was not well suited to manage the day-to-day operations. Careful design also can help assure that the entrepreneur does not lose control of the venture unnecessarily.

What Makes Entrepreneurial Finance Different from Corporate Finance?

It is natural to wonder why entrepreneurial finance is worthy of special study—why aren’t the principles of corporate finance directly applicable in an entrepreneurial setting? After all, a basic course in corporate finance concerns investment and financing decisions of large public corporations and generally introduces valuation techniques such as discounted cash flow and cost of capital analysis. The limitation, however, is that corporate finance theory assumes away a number of issues that are of secondary importance in a large corporate setting, but are critical to decision making for new ventures. These distinctions make entrepreneurial finance an intellectually challenging area worthy of special study. The focus on entrepreneurship and early-stage ventures dramatically changes the way the finance paradigm is applied.

Moreover, certain techniques of entrepreneurial finance—such as thinking about investment opportunities as portfolios of real options—while they are particularly useful in a new venture setting, are also useful
in the context of a large public corporation. They just normally do not receive much attention in corporate finance courses.

We highlight eight important differences:

1. The inseparability of new venture investment decisions from financing decisions
2. The limited role of diversification as a determinant of investment value
3. The extent of managerial involvement by investors in new ventures
4. The substantial effects of information problems on the firm’s ability to undertake a project
5. The role of contracting to resolve incentive problems in entrepreneurial ventures
6. The critical importance of real options as determinants of project value
7. The importance of harvesting as an aspect of new venture valuation and the investment decision
8. The focus on maximizing value for the entrepreneur as distinct from maximizing shareholder value

Interdependence between Investment and Financing Decisions

In corporate finance, investment decisions and financing decisions are treated as independent. The manager decides in which projects the firm should invest by comparing the return on the investment to the market interest rate for projects of equivalent risk. The manager does not need to consider simultaneously how ownership of the assets will be financed or whether the firm’s shareholders prefer high-dividend payouts or capital gains.

Of course, investment decisions and financing decisions are not completely independent in large public corporations. However, the interdependencies are generally simple and are usually addressed by making incremental adjustments to net present value (NPV).

For start-up businesses, however, the interdependencies between investment and financing decisions are much more complex. Among other things, the entrepreneur will probably place a very different value on the new venture than will well-diversified investors. These differences are important because the entrepreneur cannot normally sell shares of a private venture to generate funds for current consumption (analogous
to receiving a dividend). Therefore, simple adjustments to NPV cannot be used to address the divergence of valuations between the entrepreneur and the investor.

More generally, some investment choices are contingent upon certain financing choices. For example, rapid growth may be possible only with substantial outside financing, whereas a large corporation might be able to finance the entire project with internally generated funds. The linkage between investment choices and financing choices creates complexity that does not arise in corporate finance.

**Diversifiable Risk and Investment Value**

In corporate finance, the NPV of an investment is determined by applying a discount factor to expected future cash flows. Corporate finance proposes that the discount factor depends only on nondiversifiable risk. But this proposition relies on the assumption that investors can diversify at low cost. Although the assumption holds for many investors in a new venture (e.g., venture capitalists, wealthy angel investors, or large lenders), it categorically does not hold for the entrepreneur. In fact, the entrepreneur often must invest a large fraction of his or her financial wealth and human capital in the venture. This difference between entrepreneurs and investors in their ability to diversify results in the project value for entrepreneurs being different from the project value for investors.

In corporate finance, value additivity implies that allocation of financial claims does not affect the decision to accept a project. But for new ventures, because entrepreneurs and investors view risk differently, each ascribes a different value to the same risky asset. As a result, value additivity does not hold and the allocation of financial claims becomes important.

**Managerial Involvement of Investors**

In public corporations, investors (stockholders and creditors) generally are passive and do not contribute managerial services. Nor do they normally have access to significant inside information. In contrast, some investors in new ventures (e.g., venture capitalists and angel investors) frequently provide managerial and other services that contribute to the venture’s success. Typically, these investors will have access to inside information that they gain as a result of their continuing investment in the venture.
Information Problems and Contract Design

Separate from differences that arise even when the entrepreneur and investors agree about the expected future cash flows of a venture (and know that they agree), differences in value can arise because of the magnitude and importance of the information problem between the parties. Although information gaps also exist between insiders and outsiders of public corporations, the gaps need not materially affect the investment decisions of public corporation managers. Public corporations generally can, and often do, make investment decisions without much immediate regard to the question of how investors perceive the value of the investment.

Generally, these managers need not convince investors, lenders, or employees that a project is worth undertaking, at least in the short run. The situation is very different in the case of a start-up business that requires outside financing. In the latter case, investors look specifically to the venture to provide a return on their investments. Moreover, there is often no easy way for the entrepreneur to communicate her true beliefs about the potential for success of a new venture. From a financial perspective, this places considerable emphasis on finding ways to signal the entrepreneur’s confidence in the venture.

Incentive Alignment and Contract Design

Incentive contracting clearly plays a role in the large public corporation. On the positive side, managerial stock options and performance bonuses are intended to align the interests of managers and investors. On the negative side, debt covenants and similar provisions are designed to discourage reliance on risky debt financing that can lead to inefficient investment decisions and other agency costs associated with heavy reliance on debt. The issues are similar for start-up businesses, but reliance on incentive contracts is, in some respects, more compelling. In contrast to the managers of public corporations, investors generally keep the entrepreneur on a short leash.

There are compelling reasons to find ways of investing in the projects of unproven entrepreneurs. An investor who is good at identifying the untested entrepreneurs who are likely to succeed can participate profitably in new ventures that would have been rejected by a less astute investor. The result is that investors use a variety of contractual devices to supplement their ability to identify and motivate high-quality entrepreneurs.
The Importance of Real Options

Knowledgeable students and practitioners of corporate finance know to value projects by discounting expected future cash flows back to NPV. Even in the corporate setting, this approach is oversimplified, except with respect to the most basic independent investment projects. The reality is that most investing involves a process of acquiring, retaining, exercising, and abandoning options. Nonetheless, the common practice of ignoring options in corporate investment decisions suggests that they often are of secondary importance to the decision.

The values of real options associated with an investment depend on the degree of uncertainty surrounding the investment. For projects such as investments in research and development or an investment in a new industry, uncertainty levels are likely very high. This uncertainty adds to the importance of considering embedded option values. Nowhere is the importance of option values more central to investment decision making than for a start-up business. Staging of capital infusions, abandonment of the project, growth rate acceleration, and a variety of other choices all involve real options and contribute to the need for a process of investment decision making that focuses on recognizing and valuing the real options that are associated with the project.

Harvesting the Investment

In corporate finance, investment opportunities are evaluated based on their capacity to generate free cash flow for the corporation. The investment decision does not depend on when the cash flows are distributed to investors, except that corporations generally will not retain cash that they cannot invest profitably.

In their decisions to invest in the shares of a public corporation, investors normally give little consideration to when they will sell or to valuation and costs associated with selling. Investing in new ventures is different. New venture investments normally are not liquid and often do not generate any significant free cash flow for several years. Most investors in new ventures, and many entrepreneurs, have finite investment horizons. To realize returns on their investments, a liquidity event must occur (e.g., a public offering of equity by the venture or private acquisition of the venture for cash or freely tradable shares of the acquirer). Such liquidity events are the main ways investors in new ventures realize returns on their investments. Because of the importance of liquidity events, they generally are forecasted explicitly. The forecasts are formally factored into valuation of the investment.
Value to the Entrepreneur

The final difference between start-ups and public corporations is the focus on the entrepreneur. In the public corporation, the focus of decision making is on investment returns to shareholders. In a start-up, the true residual claimant is the entrepreneur. In the corporate setting, maximum shareholder value is the most frequently espoused financial objective. In contrast, the objective of the entrepreneur in deciding whether to pursue the venture and how to structure the financing is to maximize the value of the financial claims and other benefits that the entrepreneur is able to retain as the business grows.

It is easy to envision cases where an objective of maximizing share value would not be in the entrepreneur’s best interest. This is particularly true if the entrepreneur is unable to convince investors of the true value of the project and would therefore have to give up too large a fraction of ownership, or if the entrepreneur values other considerations besides share value.

What’s New about This Book?

This book builds on our previous book, *Entrepreneurial Finance* (2000, 2004). Like the earlier book, it ties the applications to the underlying disciplines of finance and economics. This book, published by Stanford University Press, is reorganized and updated to reflect the latest knowledge in finance and is streamlined to stress applications in key areas: valuation, adding value through deal structure and staging, and choice of financing. The chapter on venture capital is more fully developed than in the earlier book, and decision trees and simulation are presented with more examples and step-by-step analysis. We devote additional attention to financial forecasting and the construction of integrated pro forma financial statements, as both are key to valuation, contracting, and assessment of cash needs. The analysis of new venture valuation methods is more comprehensive, whereas we have streamlined the discussion and analysis of contracting between entrepreneurs and investors.

For the most part, we draw upon recent academic literature in finance and economics as the foundation for our coverage. We break new ground in several areas by presenting material and analytical approaches that extend the frontier of academic research related to entrepreneurial finance.
The book’s focus is broader than entrepreneurial finance in the context of US institutions. Instead, we have incorporated a significant international perspective by illustrating throughout the book the many similarities and the differences in analysis for US ventures versus international ventures. The book also is not limited to stand-alone entrepreneurial ventures. Rather, we have included analysis of the approaches that large corporations take, and the special challenges they face, when they seek to encourage entrepreneurship within their organizations—sometimes referred to as “intrapreneurship” or “corporate venturing.”

Intended Audience

While this book can be used as a text in an advanced finance or entrepreneurship course, its intended audience is broader. The book is appropriate for students, entrepreneurs, practitioners involved with new ventures, and corporate financial managers looking for ways to encourage corporate venturing. We have designed the book for readers who are familiar with the basic concepts and tools of corporate finance, accounting, economics, and statistics and who seek a rigorous and systematic approach to adding value to new ventures through financing and deal structure. On the companion website, we provide brief reviews for those who feel the need for a refresher on some key background concepts.

This book is appropriate for MBA students, master’s of finance students, advanced undergraduates in business and economics, and executive MBA students. In our own teaching, we use the book and related materials with students at all levels. Because entrepreneurial finance draws from and integrates all areas of management, a course developed around the book can serve as a capstone integrative experience to the MBA or an undergraduate business degree.

The book can be used effectively in an entrepreneurial finance course or in a course on venture capital and private equity. It is designed to be used either as a stand-alone resource or in conjunction with cases or a business planning exercise. Each chapter includes end-of-chapter review questions. The book website has end-of-chapter problems that are designed to give hands-on opportunities to apply the lessons of each chapter.

The book can be used in a variety of different course formats:

- Some users like our use of simulation throughout the book. For those, we provide our proprietary software, Venture.SIM™, and
we also provide files on the website that contain examples and problem solutions that are prepared using Crystal Ball and @Risk.

- For those who are oriented to case method teaching, we have provided a series of our own interactive cases that correspond to the book chapters and have developed a list of commercially available cases that work well with the book.

- For those who see value in linking the coverage of entrepreneurial finance to a business planning exercise, the organization of the book follows the normal organization of the thought processes and financial contents of a business plan.

A Note about the Website and Internet Resources

The book is designed to be used most effectively in conjunction with resources we provide on the book website, www.sup.org/entrepreneurial finance. Much of the book relates to software, spreadsheets, templates, simulation applications, and interactive cases and tutorials that are available for download. For those teaching from the book, we also provide PowerPoint presentations by chapter. Instructor-specific resources are password protected. Instructors can gain access to teaching materials that accompany the book by contacting Stanford University Press at info@www.sup.org.

The website contains problems and interactive cases, along with solutions, that complement the book material. Where appropriate, we have designated the portions of the book and website resources with symbols to designate the following:

- Indicates that the section or problem requires simulation software. Presentations in the book are developed using Venture.SIM.
- Indicates that the figure is a template that can be downloaded from the book website and modified or adapted by the user to examine a different set of assumptions.

All Excel figures in the book, including charts, are available as downloadable files so that the user can review the spreadsheet structure and cell formulas. When we use quantitative examples in discussion, the website normally includes a file that contains the back-up spreadsheet analysis.
Simulation

As a user of this book, you have access to *Venture.SIM*, a simple simulation package that is useful for addressing the kinds of uncertainty issues that arise for new ventures. *Venture.SIM* is an Excel add-in that can be set up to launch each time you open Excel or only when you want to use it. Whenever we use simulation, we present the results as *Venture.SIM* output. Because many readers will be familiar with commercial simulation packages such as @Risk and Crystal Ball, we provide @Risk and Crystal Ball versions of the simulation analysis on the book website. When we show you the Excel syntax for a simulated cell in a spreadsheet, we will use the *Venture.SIM* syntax. If you are a user of one of the other commercial packages, you can study the parallel syntax by opening our example files.

For users who do not plan to emphasize simulation, we have marked sections of the book that are focused on applying simulation to entrepreneurial finance as well as the figures and tables that require installing the *Venture.SIM* add-in to Excel in order to open properly. The book’s companion website contains suggested outlines for those who wish to emphasize simulation and those who do not.

Spreadsheets and Templates

The website contains soft copies of the figures and tables in the book, including several templates that you can use to study your own new venture valuation questions (i.e., you can easily edit the template to study and value your own cash flow projections).