Preface

I suspect that most business books are sparked by moments of pure frustration. My own experience was the clash of four worlds.

First, my modern graduate school training in valuation and the pricing of risk was breathtaking in its vision and elegance. The powerful ideas I studied changed public policy and financial markets. But, as I later discovered, these concepts have not been deeply applied in corporations.

A second world was strategy consulting. Working with large corporations on important and risky decisions, I used a toolkit that was rich but confusing to clients. Sure, the method could provide good answers to hard questions—Build the chemical plant? Switch technologies on our key product? Set a price for that piece of intellectual property?—but the tools became black boxes after the consultants left. Risky projects were the key to growth, but their value remained unclear to those who owned the opportunity.

Third, in my work with startup companies I've noticed a profound disconnect between the startups and more established firms. Experienced entrepreneurs and venture capitalists use a language about risky growth that helps everyone to quickly identify the key drivers of value and to quickly dismiss business ideas that don't have enough value. This language, shared frameworks, and tendency to act would have helped my corporate clients.

viii Preface

This has been a fragmented and frustrating experience, but also a struggle at the conceptual level. The fourth and last force in my colliding worlds has been watching managers struggle to understand and quantify the value of growth opportunities. Managers really don't like the hard work required by our current valuation tools; they are very genuine in their intent, yet very frustrated. The managers I've met gave shape to the vision of this book: a method to create easy-to-use and credible valuation tools that can be used to compare growth opportunities across the sweep of value.

This book is about a new approach to valuation, one designed to meet three objectives:

- Benchmark and compare the value of growth opportunities. With a clear picture of the economic landscape, we can better assemble the scarce resources required for strong corporate growth.
- Align the value of private growth opportunities with publicmarket valuations. This opens the door to innovative ways to finance, insure, and monetize growth projects.
- Replace complex calculations with simple and transparent methods. People and financial resources gravitate toward growth opportunities with a credible and well-understood value proposition.

Who Should Read This Book

This book is written for managers who don't want to be valuation experts; strategists who want to weigh alternatives with a set of simple calculations; CFOs and business unit heads who want to compare the varied initiatives clamoring for their approval; and M.B.A. students who are trying to grasp and use high-powered ideas. Real people require credible, transparent, and easy-to-use valuation methods that work across the sweep of growth opportunities.

Readers of this book share a bias toward action; they have jobs that help to nourish and grow new products, new markets, and new companies. While the industries and job functions are quite varied, the needs are the same. The more detailed look at who should read this book includes:

Preface ix

Managers at the crossroads. This includes CEOs, CFOs, business unit heads, and those who head growth initiatives and other new ventures. Managers at the crossroads must make the tough choices—"Do I put money into this project or that one?"—and need a way to compare the value and risk of growth from business as usual with the value and risk of new initiatives.

- The staff who support managers at the crossroads. Your boss read this book, and he dropped it in your lap. (Of course you should read it, too!) There is a language and a method here that brings the value and risk of growth to life. You can use this book to shape alternatives and to quickly summarize opportunities. Use the Web site, www.valuesweep.com, to make this process easier.
- Equity analysts. Many analysts write schizophrenic reports. They use a simple quantitative model to obtain a target stock price. Meanwhile, significant and interesting growth opportunities are described in the text surrounding the number—but they are never directly translated into value. This book is aimed at giving analysts a way to quantify growth opportunities in a quick and sensible way.
- Managers who speak to equity analysts and investors. Your company has some innovative early-stage projects and is performing well in its current business. The innovative projects might not hit, yet the pipeline deserves some value credit. How can Wall Street's expectations be set? Meanwhile, the analysts will react harshly if the current business fails to meet its projections. Are they overreacting? The framework of this book helps to communicate your answer to these questions.
- Finance staff. Companies want to do the right thing, to select the strategic investments that increase shareholder value and to reject all others. The problem is that their valuation frameworks have not kept up with the complexity of new business opportunities. The quantitative analysis drags on and on, and out of frustration, critical decisions are made for strategic reasons without regard to value. Often, because growth projects are so exciting, a frothy optimism prevails.

x Preface

As a remedy, this book offers a hard cold logic about how growth strategies translate into value. Armed with context, transparency, and intuition, finance staff can help to speed up and make credible the tough decisions about growth opportunities.

- *Investors*. At the peak of the Internet boom, nearly 20 percent of the firms traded in U.S. stock markets were not profitable. A wider range of investors must now do what angel investors and venture capitalists have been doing for some time—quantify the value of preprofit growth opportunities. The framework in this book allows reverse-engineering of stock prices, and the examples show periods in which the market over- and undervalued firms rich in growth opportunities.
- Those ready to contribute financial resources to growth opportunities. Value is opaque in many private markets. Consequently, there are widely divergent expectations about value that frequently slow negotiations or, even worse, kill transactions. The methods of this book create a common point of reference for those who own growth assets and those who can bring innovative financing to them.
- Auditors. This book provides a framework to align private
 assets with valuations in the public markets, the mark-tomarket of growth assets. Intangible assets constitute the
 majority of corporate value, and growth opportunities are a
 large portion of intangible asset value. There's much debate
 but no clear and well-accepted method for the valuation of
 intangible assets. My hope is that this book is a solid step
 forward.

Real Options: Beyond Pioneers

Three years ago, I wrote a book on real options, *Real Options: Managing Strategic Investment in an Uncertain World,* with Nalin Kulatilaka of Boston University. We saw real options as a powerful way of thinking and a useful valuation framework for managers. *Real Options* was written to serve as a bridge between academic literature and managerial concerns. (For more information on real options, see www.valuesweep.com.)

Preface xi

Our book, along with others written on real options, hit a nerve. The concept of real options straddles strategy and finance, and a common reaction from managers was, "I just knew there was value in this project. Now I see that it has embedded real options."

Unfortunately, new ideas are often too complex to be widely applied, and this was the case when real options met the business world. In some companies, real options advocates have asked managers to spend time working through the partial differential equation that underlies the foundation of option pricing. In other companies, detailed, handcrafted, and highly opaque real options models have been used to justify investment decisions. Eyes glaze over for everyone but the author of the report. Real options has suffered from what I call the "second date problem": It's great as the subject for a workshop or first project, but real options fails to take off inside the company. There's no second date!

After the publication of *Real Options*, I benefited from working side by side with the practitioners of decision analysis at SDG (formerly the Strategic Consulting Division at Navigant Consulting). For years, this group of consultants has helped companies make high-quality strategic investment decisions in the face of risk from product markets, technology, and managerial inertia. The folks at SDG helped me learn what is really new about real options and what had already been learned by another field, decision analysis.

From these experiences I drew two strong conclusions about real options. First, in many applications, real options is not the right tool. I'll raise this issue throughout this book and show how to combine real options with other perspectives. Second, decision analysis (and decision analysis coupled with real options) is quite an expansive approach; it can handle a lot of detail. Often, however, the detail overwhelms the rationale. A consistent theme in this book is that to be used, real options must be understood. This requires simple calculations and a strong story line. In sum, I see *Value Sweep* is a natural follow-on to *Real Options*.

Expectations Investing

This book speaks to many of the same issues as *Expectations Investing*, written by my book-writing colleagues Michael Mauboussin and Al Rappaport. *Expectations Investing* sets up a clear valuation

xii Preface

framework (used in Chapter 3 of this book) and shows how to find the expectations embedded in stock prices. *Value Sweep* focuses on growth opportunities and uses market expectations to better value private assets. It has been my great pleasure to collaborate with Michael and Al on initial drafts of Chapter 4, which overlaps with Chapter 8 in their book.

Acknowledgments

I'd like to start with my editors, Kirsten Sandberg and Jacque Murphy. Their vision and support for this book have been unwavering and valuable. They seem to have been to that special school where editors are taught how to delicately switch between carrot and stick—and have mastered the lessons with grace. Many thanks.

In the years since the publication of *Real Options*, I have had the wonderful experience of sharing and growing the ideas that Nalin Kulatilaka and I wrote about with an insightful and energetic group of people. Many of those conversations and experiences are reflected here. Thanks to Nalin, John Henderson, and Cyrus Remezani and to my former colleagues at Navigant Consulting—Jim Matheson, Jeff Foran, Udi Meirav, Jerry Caciotti, Rishi Varma, and Dave Macway. Special thanks to David Fishman, who continues to be a terrific sounding board and reliable reader on concepts and issues.

My deep gratitude also goes to Alan Jung. Alan has been part of many of these conversations, has worked with me closely in building real options applications, and has carefully read earlier drafts of this book. A group of anonymous reviewers also provided early and helpful feedback.

During the writing of a book, there is often one conversation, one lunch, that significantly changes how the book's content is presented and organized. Thanks to Blake Johnson for that special lunch. Blake's comments, which span the range of his own unique perspective (from Stanford professor to founder of a startup), have made this book more useful.

Laura Martin, who collaborated on the original work for Chapter 10, continues to be a delight and a delightful challenge. Her energy and enthusiasm for innovative valuation methods is won-

Preface xiii

derful and much appreciated. Her insatiable curiosity, her willingness to go one level deeper, and her Wall Street–style sense of impatience have kept me on my toes. The book is better for it; many thanks.

Michael Mauboussin has been a strong and thoughtful voice for real options on Wall Street. Writing books opens doors, and I'm very glad that my earlier book has caused our paths to cross. Al Rappaport, Michael's coauthor of *Expectations Investing*, carefully read an early draft of this book and provided an important editorial wake-up call. My deep thanks.

During the writing of this book, I was fortunate to be assisted by Vera Scalia, who with great competency and humor helped with manuscript and graphics. Kyle Kim also provided research assistance. Richie Ganitsky stepped in at the last stage and provided steady assistance, with incredible attention to detail. Marc Igler and Jennifer Cray generously gave me last-minute editorial support. Jane Bonassar at Harvard Business School Press patiently coordinated production. Thanks also to the companies, individuals, and former clients who heard draft presentations of the material in this book, including Ron Beaver and Bill Poland of Pharsight, David Avny of MIPS, Paul Germeraad of Aurigin, and the staff of In-Q-Tel.

A special group of people have come to represent for me the raw and elegant beauty of a growth opportunity, those folks who surround a young startup, Vocomo Software. Special thanks to Mitsuru Oshima, Mike Inman, Luke Hohmann, and particularly Danny Lange and Nick Arvanitidis. In this group are three book authors and three Ph.D.'s. Their patience and understanding of my bookwriting is greatly appreciated. As Oshima told me, "It is a privilege to have the opportunity to write a book." He's right, and it's also a privilege to work with this group.

Families bear the highest cost of authorship. My children, Oz and Aurelle, have been cheerleaders and enthusiasts, despite many inconveniences. My husband, Yosi, who has taken two companies from idea through IPO, is quite familiar with the marathon of business growth yet continues to bring fun and personal growth to our lives. Yosi's helpful and encouraging advice has been "Just finish the darn book!" (See how he gets things done?) Many, many thanks for all that and more.