

Chapter 1

Introduction

INTRODUCTION

Starting in 1980 and through the time of the writing of this chapter in 2022, there has been a tremendous boom in the private capital industries. The pool of North American funds of these types—partnerships specializing in new ventures, leveraged buyouts, growth, mezzanine investments, build-ups, distressed debt, and related investments—has grown from \$5 billion in 1980 to slightly more than \$3.9 trillion in 2021.¹

The reasons why private capital (which we use to encompass venture capital, buyout, growth, and related forms of investment) has grown so spectacularly are not hard to see. Many of the companies whose products and services we use every day—such as Amazon, Apple, Intel, Google, Facebook, Microsoft, Pinterest, Peloton, and Uber—were originally venture-backed. Not only have these investments had a substantial impact on society, but they also created significant value for the entrepreneurs who ran the firms, the institutional and individual investors who invested in the companies, and the private investors themselves.

The scale of some of these successes boggles the imagination. In June 1999, Kleiner Perkins paid \$12.5 million for 10 percent of Google. (Sequoia Capital made a similar investment at the time.) While the precise value of the shares that Kleiner distributed to its investors after the firm went public in 2004 can be tricky to calculate, the value appears to have been at least \$4.3 billion, or some 344 times the original investment.² As of June 2022, Google’s market capitalization stood at about \$1.6 trillion. Another “hall of fame” entry would be Andreessen Horowitz’s December 2013 investment of \$20 million in Coinbase, the cryptocurrency trading intermediary, which they supplemented with follow-on investments and secondary purchases.³ While it was not the first investor (Ribbit Capital and Union Square invested in the Series A, which also proved enormously profitable), Andreessen acquired the largest stake in the fledgling entity. Security filings suggest that the venture group returned at least \$5 billion of profits from this investment to its limited partners (LPs), with substantial remaining holdings.

Nor have these successes been confined to esoteric firms sporting technology developed by Stanford doctoral students and Airbnb engineers. The Blackstone Group bought Equity Office Properties (EOP) in February 2007 for a seemingly astronomical price of \$38.7 billion (most of

¹ McKinsey and Company, “Private Markets Rally to New heights: McKinsey Global Private Markets Review 2022,” McKinsey & Co., 2022, <https://www.mckinsey.com/~/media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/2021/mckinsey-global-private-markets-review-2021-v3.pdf>. This calculation includes venture capital, private equity, growth, private debt, and related private capital, but not infrastructure, natural resources, and real estate.

² Information on these transactions is taken from the PitchBook database, accessed June 14, 2022. For a representative calculation of Kleiner’s returns, see “Just How Much Did VCs Pocket on Google?,” Burnham’s Beat, June 24, 2005, http://billburnham.blogs.com/burnhamsbeat/2005/06/just_how_much_d.html.

³ See the discussion, for instance, in Ari Levy, “Here’s Who Just Got Rich from the Coinbase Debut,” *CNBC*, April 14, 2021, <https://www.cnbc.com/2021/04/14/coinbase-who-gets-rich.html>; and Eric Lipton, Daisuke Wakabayashi, and Ephrat Livni, “Big Hires, Big Money and a D.C. Blitz: A Bold Plan to Dominate Crypto,” *New York Times*, October 29, 2021, <https://www.nytimes.com/2021/10/29/us/politics/andreessen-horowitz-lobbying-cryptocurrency.html>.

which was represented by \$35 billion of assumed debt).⁴ The new owners, mindful of the rapidly gathering economic storm clouds and the high leverage in the transaction, rapidly sold many of the properties following the deal, often at even higher prices: Many of the transactions had, in fact, been arranged while the EOP acquisition was under negotiation. In total, Blackstone sold \$30 billion of properties in the six months after the deal. Many of the divested properties were second-tier markets, whose values the investors anticipated would be adversely impacted by a recession. Meanwhile, they retained a portfolio of trophy office properties in downtown New York, Los Angeles, and other major cities. By 2017, Blackstone's proceeds and remaining holdings added up to triple its initial \$3.5 billion equity investment. While the multiple of capital may have been lower than the venture deals described above, the dollars earned were similar.

Not only has private capital become more influential in terms of backing world-changing companies, but its influence appears to have spread beyond the industry's immediate boundaries. Many operating corporations, financial institutions, and even governments have emulated venture capitalists and set up their own funds to invest inside and outside their organizations. Established firms have adopted many of the key approaches of buyout funds, such as the connection of executive compensation to performance, a heavier reliance on debt, and a willingness to sell off underperforming units.

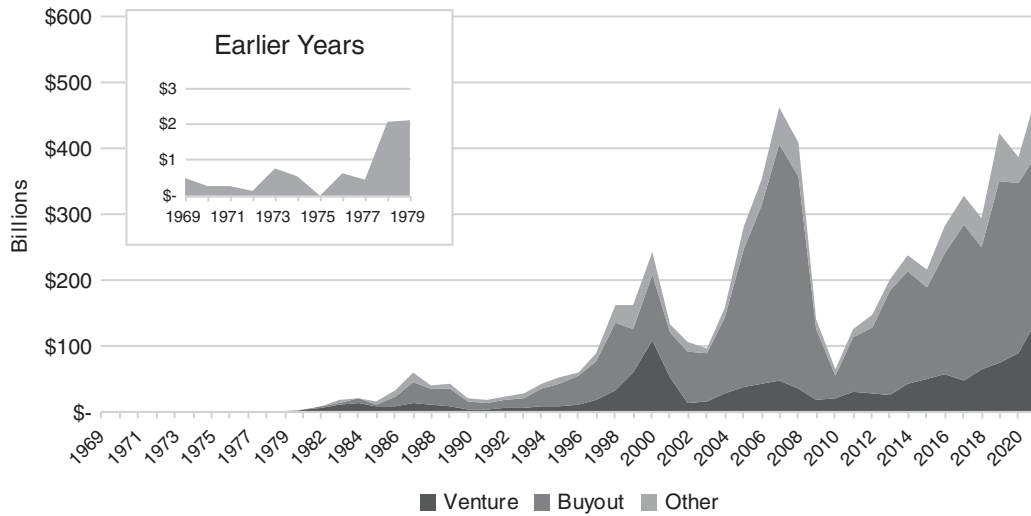
Despite this growth, many questions about private capital remain unanswered, and many of its features continue to be mysterious. What do private capital groups really do? How do venture capital and buyout funds create value—do they fundamentally transform the companies in which they invest, or is it all simply a financial “shell game”? What kinds of returns have these funds generated? While some of the largest private equity firms have gone public and thus are subject to some degree of reporting, they often manage to obscure the “juiciest” bits of information. Maddeningly, private capital is just so . . . private!

In addition to questions about the day-to-day activities of these funds, the patterns of venture capital and buyout fundraising and investment pose several puzzles. (The pattern of private capital fundraising in the United States is illustrated in Exhibit 1.1; that worldwide in Exhibit 1.2.) First, the level of activity today is far greater than in earlier decades—what explains the tremendous growth in these funds? Even more puzzling is the process of boom and bust that characterizes this industry. There were rapid increases in fundraising in the late 1960s and early 1970s, mid-1980s, late 1990s, mid-2000s, and 2010s, and precipitous declines in the mid-1970s, early 1990s, early 2000s, and the late 2000s. What explains the changing mixture of fund types?

Then there is the global dimension. Private capital—from venture capital through growth equity to leveraged buyouts—originated in the United States and for much of its history, the industry was concentrated in that nation and the United Kingdom. Over the past two decades, however, private capital has become much more global. Not only has the share of capital disbursed in the United States fallen sharply, but the share everywhere else has grown: Europe, Asia, and emerging markets.

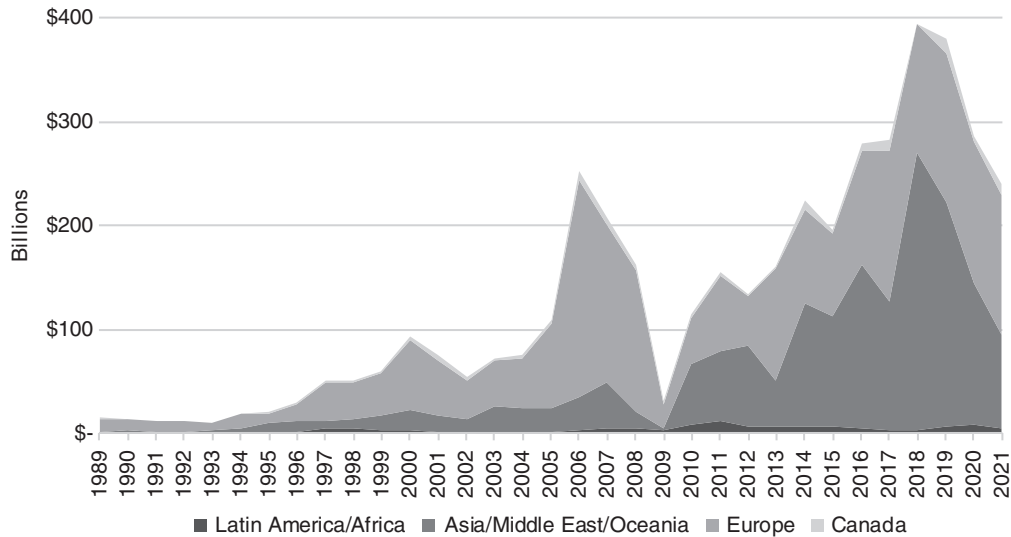
Exhibit 1.3 illustrates this change, comparing the global distribution of private equity investments made in 1995, 2007, and 2021. This growth poses several questions. To what extent is the model, developed and refined over the past several decades, likely to be successfully translated to other countries in its entirety? While substantial amounts of money have been raised and invested in these markets, to what extent will the investments be successfully exited, generating the returns that are critical to sustaining investor interest?

⁴ This discussion is based on Joshua Beroukhim, “How Blackstone Tripled Its Initial Investment Through Its 2007 Buyout of Equity Office Properties,” *Behind the Deals*, January 5, 2017, <https://behindthedeals.com/2017/01/05/how-blackstone-tripled-its-initial-investment-through-its-2007-buyout-of-equity-office-properties-part-2-the-selloff-ownership-process-and-outcome/>; and Nick Yeh, “Blackstone’s Buyout of Equity Office Properties,” Unnumbered Wharton PEVC Case Study, 2018, <http://www.whartonugpevc.com/articles/2018/11/16/case-study-blackstones-buyout-of-equity-office-properties-eop>.

EXHIBIT 1.1 U.S. Private Equity Fundraising (2021 US\$)

Note: Deflated using U.S. GDP deflator. Inset presents cumulative private capital fundraising in early years.

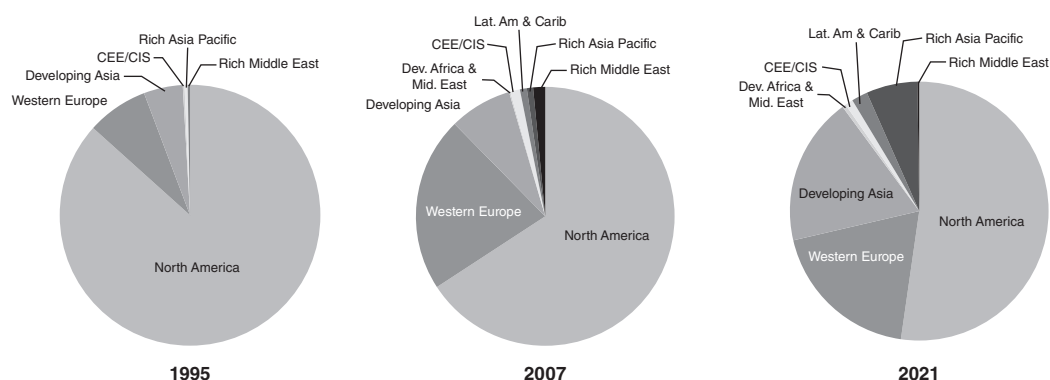
Source: Data compiled from Refinitiv and predecessor entities, Asset Alternatives, and Preqin, accessed at various times.

EXHIBIT 1.2 Private Equity Fundraising Outside the United States (2021 US\$)

Note: Deflated using U.S. GDP deflator. Asian totals prior to 2010 are for investment.

Source: Data compiled from various national and regional private equity associations and Preqin, accessed at various times.

While private capital can be said to differ from public investing along a host of dimensions, the most fundamental is its emphasis on activity. Private capital investors across the spectrum are active, deeply involved in managing the companies in which they invest. This activity is reinforced through the partnership and deal structures they employ and the way they interact with individuals and institutions at all points of value creation. It is this active involvement that builds companies, in the case of venture capital, and changes their direction, in the case of buyouts. This is distinct from the “active management” strategies that managers of hedge funds or mutual funds may use in

EXHIBIT 1.3 Private Equity Investment by Region, 1995, 2007, and 2021

Notes: “Rich Asia Pacific” is Japan, Singapore, Hong Kong, Macao, South Korea, Australia, and New Zealand; all other Asia is “Dev. Asia”. “Rich Middle East” includes the UAE, Saudi Arabia, Kuwait, Bahrain, and Israel; all other Middle East countries are in “Dev. Africa and Mid. East.” CEE/CIS is Central and Eastern Europe and the Commonwealth of Independent States. “Lat. Am and Carib” includes all of Central and South America and all Caribbean islands regardless of nationality. Source: 1995 and 2007 data are adapted from Josh Lerner, Per Stromberg, and Morten Sørensen, “What Drives Private Equity Activity and Success Globally?,” in Anu Gurung and Josh Lerner (eds.), *Globalization of Alternative Investments Working Papers Volume 2: Global Economic Impact of Private Equity*, World Economic Forum, 2009, http://www.weforum.org/pdf/cgi/pe/Full_Report2.pdf; 2021 data are compiled from S&P Global Market Intelligence and Global Private Capital Association databases, accessed July 30, 2022.

the public markets, and from the “activist investment” strategies of groups such as Elliot Management, which take positions in public companies and agitate for short-term change. The techniques of active investing make private capital a powerful force not just for growing companies but for growing economies. But how can its tools—active oversight by investors with a direct interest in the company’s success, compensation linked to results, and an emphasis on good governance—best be adopted?

This textbook explores these exciting and important questions, providing a comprehensive overview of the world of active investing. The book will follow the cycle of these investments. Raising funds, evaluating investment opportunities, structuring and overseeing transactions, and exiting investments will be considered in turn. We will focus not just on the U.S. market but on the increasingly global nature of these activities. The book will also look at active investors as businesses themselves and introduce the key features of these firms. How groups grapple with questions of scaling and internationalization and the disruptive impact of market cycles will be among the topics considered. In addition, we will look at the impact of these funds: first, how their investments have performed, and then the broader consequences of these investments. We will finally look “into the crystal ball” and project the future of active investing.

WHAT ARE VENTURE CAPITAL AND LEVERAGED BUYOUT INVESTMENTS?

A natural first question is what constitutes a venture capital and leveraged buyout fund. Many start-up companies require substantial capital. A company’s founder may not have sufficient funds to finance these projects alone and, therefore, must seek outside financing. Entrepreneurial companies that are characterized by significant intangible assets expect years of negative earnings and have uncertain prospects are unlikely to receive bank loans or other debt financing. Similarly, troubled companies that need to undergo restructurings may find it difficult to raise external financing.

Meanwhile, large institutional investors, such as pension funds, sovereign wealth funds, and university endowments, frequently seek illiquid long-run investments such as private capital for their portfolios. Charged with investing over the longer term, the groups can typically set aside some funds for the very distant future. Often, these groups have neither the staff nor the expertise to make such investments themselves.

Venture capital and buyout organizations fill the gap between these two sets of players. They finance high-risk, potentially high-reward projects, primarily investing funds that they raise from institutions and high net-worth individuals. They protect the value of their equity stakes by undertaking careful business and financial due diligence before making the investments and by retaining powerful oversight rights afterward. Ultimately, they sell their stakes in the firms and return the bulk of their profits to their investors.

One of (several!) confusing things about private capital is terminology. In Europe, the term “venture capital” is frequently used to refer to the entire spectrum of private capital investment, from seed investments to the largest leveraged buyouts. In the United States, the term “private equity” is sometimes used to refer to all these investments (which is the sense we will use here, alongside the similar phrase private capital), but may also apply just to leveraged buyouts, or else to all such investments except for seed venture investing. In yet other cases, private equity refers to transactions that are somewhere between venture capital and buyouts, such as growth equity and mezzanine deals.

WHY IS PRIVATE EQUITY NEEDED?

Private equity plays a critical role in the American economy, and increasingly does so elsewhere around the globe as well. The types of companies financed by private equity organizations—whether young start-ups hungry for capital or ailing giants that need to restructure—pose numerous risks and uncertainties that discourage other investors.

In this section, we first review the risks that these companies pose and then consider briefly how private equity organizations address them. Finally, we discuss why other financiers, such as banks, often cannot address these problems as effectively as private equity firms.

The financing of young and restructuring companies is a risky business. Uncertainty and informational gaps often characterize these organizations, particularly in high-technology industries. These information problems make it difficult to assess these companies and permit opportunistic behavior by entrepreneurs after the financing is received.

To briefly review the types of conflicts that can emerge in these settings, conflicts between managers and investors (“agency problems”) can affect the willingness of both debt and equity holders to provide capital. If the firm raises equity from outside investors, the managers have an incentive to engage in wasteful expenditures (e.g., lavish offices) because they may benefit disproportionately from them but do not bear their entire cost. Similarly, if the firm raises debt, the manager may increase risk to undesirable levels. Because providers of capital recognize these problems, outside investors demand a higher rate of return than would be the case if the funds were internally generated.⁵

Additional agency problems may appear in the types of entrepreneurial companies in which private equity firms invest. For instance, entrepreneurs might invest in strategies, research, or projects that have high personal returns but low expected monetary payoffs to shareholders: consider a biotechnology company founder who chooses to invest in a certain type of research that brings her

⁵ The classic treatment of these problems is in Michael C. Jensen, and William H. Meckling, “Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure,” *Journal of Financial Economics* 3 (1976): 305–60.

great recognition in the scientific community or solves her child's rare disease but provides little return for the venture capitalist. Similarly, entrepreneurs may receive initial results from market trials indicating little demand for a new product but may want to keep the company going because they receive significant private benefits from managing their own firm.

Even if the manager is motivated to maximize shareholder value, information gaps may make raising external capital more expensive or even preclude it entirely. Equity offerings of companies may be associated with a “lemons” problem: if the manager is better informed about the company's investment opportunities and acts in the interest of current shareholders, then new shares will only be issued when the company's stock is overvalued. Indeed, numerous studies have documented that stock prices decline upon the announcement of equity issues, largely because of the negative signal sent to the market. This “lemons” problem leads investors to invest less in young or restructuring companies than they would otherwise, or even not to invest at all. Similar information problems have also been shown to exist in debt markets.⁶

More generally, the inability of a typical investor to verify actions or outcomes makes it difficult to write contracts that are contingent upon particular events. This inability makes external financing costly. Many economic models⁷ argue that when investors find it difficult to verify that certain actions have been taken or certain outcomes have occurred—even if they strongly suspect the entrepreneur has followed a certain action that was counter to their original agreement, they cannot prove it in a court of law—external financing may become costly or difficult to obtain.

If the information problems could be eliminated, these barriers to financing would disappear. Financial economists argue that specialized intermediaries, such as private equity organizations, have the skills to address these problems. By intensively scrutinizing companies before providing capital and then monitoring them afterward—that is, by being active—they can alleviate some of the information gaps and reduce capital constraints. Thus, it is important to understand the tools that private equity investors use in this difficult environment, which enable companies to receive the financing that they cannot raise from other sources. It is the nonmonetary aspects of private equity that are critical to its success. These tools—the screening of investments, the use of convertible securities, the syndication and staging of investments, and the provision of oversight and informal coaching—are highlighted in the middle chapters of the book.

What prohibits other financial intermediaries (e.g., banks) from undertaking the same sort of monitoring? While it is easy to see why individual investors may not have the expertise to address these types of agency problems, one might think that bank credit officers could undertake such oversight. Yet even in countries with exceedingly well-developed banking systems, such as Germany and Japan, policymakers today are seeking to encourage the development of a private equity industry to insure more adequate financing for risky entrepreneurial companies. Clearly, this falls outside the domain of even skilled bank staff.

The limitations of banks stem from several of their key institutional features. First, because regulations in the United States limit banks' ability to hold shares, they cannot freely use equity to fund projects. Taking an equity position in the firm allows the private equity firm to share

⁶ The “lemons” problem was introduced in George A. Akerlof, “The Market for ‘Lemons’: Qualitative Uncertainty and the Market Mechanism,” *Quarterly Journal of Economics* 84 (1970): 488–500. Discussions of the implications of this problem for financing decisions are in Bruce C. Greenwald, Joseph E. Stiglitz, and Andrew Weiss, “Information Imperfections in the Capital Market and Macroeconomic Fluctuations,” *American Economic Review Papers and Proceedings* 74 (1984): 194–99; and in Stewart C. Myers and Nicholas S. Majluf, “Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have,” *Journal of Financial Economics* 13 (1984): 187–221.

⁷ Important examples include Sanford Grossman and Oliver D. Hart, “The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration,” *Journal of Political Economy* 94 (1986): 691–719; and Oliver D. Hart and John Moore, “Property Rights and the Nature of the Firm,” *Journal of Political Economy* 98 (1990): 1119–58.

proportionately in the upside, guaranteeing that the investor benefits if the company succeeds. Second, banks may not have the necessary skills to evaluate projects with few tangible assets and significant uncertainty. In addition, banks in competitive markets may not be able to finance high-risk projects because they are unable to charge borrowers rates high enough to compensate for the company's riskiness. Finally, private equity firms' high-powered compensation schemes give these investors incentives to monitor companies more closely, because their individual compensation is closely linked to the firms' returns. Banks, corporations, and other institutions that have sponsored venture funds without such high-powered incentives have found it difficult to retain personnel once the investors have performed well enough to raise a fund of their own.⁸

At the same time, it is important to highlight that private equity—especially buyout funds—have stirred considerable fear and uncertainty, which has been manifested in the numerous proposals that legislators worldwide have recently introduced to tax and regulate the industry. In some cases, this legislation is being prompted by reasonable concerns about an increasingly influential and opaque financial intermediary, which existing rules are not designed to handle. In other cases, however, initiatives seem motivated by a desire by entrenched actors to protect an inefficient *status quo*.

WHAT IS THE HISTORY OF PRIVATE EQUITY?

In its initial decades, the private equity industry was a predominantly American phenomenon. Of course, fast-growing firms raised financing before the creation of the private equity industry. Banks provided debt in the form of loans, and longer-term, riskier investments often raised funds from wealthy individuals. By the last decades of the 19th century and the first decades of the 20th century, wealthy families had established offices to manage their investments. Families such as the Phippses, Rockefellers, Vanderbilts, and Whitneys invested in and advised a variety of business enterprises, including the predecessor entities to AT&T, Eastern Airlines, and McDonnell Douglas.

But by the time of the Great Depression of the 1930s, there was a widespread perception that the existing ways of financing fast-growing young firms were inadequate.⁹ Not only were many promising companies going unfunded, but investors with high net worth frequently did not have the time or skills to work with young firms to address glaring management deficiencies. Nor were the alternatives set up by the Roosevelt administration during the New Deal—such as the Reconstruction Finance Corporation—seen as satisfactory. The rigidity of the loan evaluation criteria, the extensive red-tape associated with the award process, and the fears of political interference and regulations all suggested the need for an alternative.

The first formal venture capital firm was thus established with a broader set of goals in mind than just making money.¹⁰ American Research and Development (ARD) grew out of the concern that the United States, having been pushed out of the Depression by the stimulus of the federal

⁸ The limitations of bank financing are explored in such theoretical and empirical academic studies as Joseph E. Stiglitz and Andrew Weiss, "Credit Rationing in Markets with Incomplete Information," *American Economic Review* 71 (1981): 393–409; and Mitchell A. Petersen and Raghuram G. Rajan, "The Effect of Credit Market Competition on Lending Relationships," *Quarterly Journal of Economics* 110 (1995): 407–444.

⁹ For one discussion of the limitations of public efforts to boost entrepreneurial firms in the 1920s, see Joseph L. Nicholson, "The Fallacy of Easy Money for Small Business," *Harvard Business Review* 17 (Autumn 1938): 31–34.

¹⁰ This history of American Research and Development is largely drawn from Spencer Ante, *Creative Capital: Georges Doriot and the Birth of Venture Capital* (Boston, MA: Harvard Business School Press, 2008); and Patrick R. Liles, *Sustaining the Venture Capital Firm* (Cambridge, MA: Management Analysis Center, 1978). Two broader histories of the venture capital industry are Tom Nicholas, *VC: An American History* (Cambridge, MA: Harvard University Press, 2019); and Sebastian Mallaby, *The Power Law: Venture Capital and the Making of the New Future* (New York: Penguin Press, 2022).

government's wartime spending, would soon revert to economic lethargy when the war ended. In October 1945, Ralph Flanders, then head of the Federal Reserve Bank of Boston, argued that addressing this danger required a new enterprise, founded with the goal of financing new businesses. He argued that the enterprise would not only need to be far more systematic in "selecting the most attractive possibilities and spreading the risk" than most individual investors had been, but would need to tap into the nation's "great accumulation of fiduciary funds" (i.e., pension funds and other institutional capital) if it was to be successful in the long term.¹¹

ARD was formed a year later to try to realize this vision. Flanders recruited a number of civic and business leaders to join in the effort, including MIT president Karl Compton. But the day-to-day management of the fund fell on the shoulders of Harvard Business School professor Georges F. Doriot. ARD in its communications emphasized that its goal was to fund and aid new companies to generate "an increased standard of living for the American people." While profitability was a goal of the effort, in the words of Pat Liles, financial returns "were not the overriding purpose of the firm. Instead, they were depicted as a necessary part of the process."¹²

This tension between the broader social goals and financial returns ran through ARD's first two decades. In part, these dual goals reflected the tensions inherent in being a public company. Despite Flanders' emphasis on institutional capital, limited interest had forced ARD to raise its initial \$5 million through a public offering. (Most early private equity funds were structured similarly.) Many of the investors—perhaps persuaded by overzealous brokers to buy the shares—had not appreciated the extended period necessary to realize capital gains or other profits from the early-stage companies that dominated ARD's portfolio. As a result, Doriot spent much of the 1950s and 1960s defending the longer-run objectives of the fund. In *Fortune's* unsympathetic portrait of ARD in 1967, Doriot was quoted: "Your sophisticated shareholders make five points and then sell out. But we have our hearts in our companies, we are really doctors of childhood diseases here. When bankers or brokers tell me I should sell an ailing company, I ask them, 'Would you sell a child running a temperature of 104?'"¹³ The ultimate success of ARD's investments ranged widely: almost half of ARD's profits during its 26-year existence as an independent entity came from its \$70,000 investment in Digital Equipment Company in 1957, which grew in value to \$355 million.

The same tension underlay the next great experiment to promote venture activity, the Small Business Investment Companies (SBICs). These federally guaranteed risk-capital pools proliferated during the 1960s and accounted for the bulk of all venture capital raised during those years.¹⁴

The rationale for these entities was like that invoked by Doriot: numerous promising entrepreneurs were unable to garner the capital needed to commercialize their ideas. But in one important respect the SBICs were unlike the pioneering efforts of the 1930s: legislators realized that government bureaucrats—no matter how well intentioned—were probably not the right people to make the tricky decisions about which businesses to fund. Instead, this responsibility was put in the hands of the private sector.

As enacted in 1958, the SBICs received two powerful mandates: they could borrow up to half their capital from the federal government and they also received a variety of favorable tax incentives. In return, the SBICs had to confine themselves to investing in small businesses. More onerously, the investments had to be structured in certain ways: for instance, the SBICs could not

¹¹ Ralph Flanders, "The Problem of Development Capital," *Commercial and Financial Chronicle* 162 (November 29, 1945): 2576–2608.

¹² Liles, *op. cit.*, p. 32.

¹³ Gene Bylinsky, "General Doriot's Dream Factory," *Fortune* 76 (August 1967): 103–36.

¹⁴ This history of the SBIC program is drawn from C. M. Noone and S. M. Rubel, *SBICs: Pioneers in Organized Venture Capital* (Chicago, IL: Capital Publishing, 1970). Jonathan J. Bean, *Big Government and Affirmative Action: The Scandalous History of the Small Business Administration* (Lexington: University Press of Kentucky, 2001); and Liles, *op. cit.*

hold equity in firms (although the debt could be convertible to equity), and their control over these firms was also limited. Moreover, steps that seem like second nature to venture capitalists—such as offering stock options to employees of the firms—were sharply restricted.

These features of the SBIC program were criticized by knowledgeable observers even before the legislation enabling the funds was enacted. The criticism of the program intensified in the early 1960s, when a large number of SBICs were financed, often with minimal review. The entities receiving charters and loans from the government included some run by inexperienced financiers who undertook lines of business very different from those originally intended by Congress—such as real estate development—along with corrupt funds determined to make “sweetheart” financings to dubious businesses run by friends, relatives, and, in a few cases, organized crime. Nine out of ten SBICs violated federal regulations in some way.¹⁵ The SBIC program consequently drew extensive congressional criticism for low financial returns and for fraud and waste. Despite some wavering, the officials responsible for the program (and the executive branch more generally) remained committed to it and resisted calls to dismantle it. While the market for SBICs in the late 1960s and early 1970s was strong, incentive problems led to a rapid decline of activity.

Viewed with the benefit of hindsight, however, the legacy of the program from the 1950s and 1960s looks quite different. Though few of today’s significant funds began as part of the SBIC program, it did stimulate the proliferation of many venture-minded institutions in California’s Silicon Valley and Boston’s Route 128, the nation’s two major nurseries of entrepreneurs. These institutions included law firms and accounting groups geared specifically to the needs of entrepreneurial firms. For example, Venture Economics, which originated as the SBIC Reporting Service in 1961, gradually expanded its scope to become the major source of returns data on the entire venture industry. Moreover, some of the United States’ most dynamic technology companies—including Apple Computer, Compaq (acquired by Hewlett-Packard), and Intel—received support from the SBIC program before they went public. Similar lessons could be drawn from programs modeled after the SBIC program in nations such as China and Singapore.

The first venture capital limited partnership, Draper, Gaither, and Anderson, was formed in 1958. Despite a few imitators, limited partnerships accounted for a minority of the venture pool during the 1960s and 1970s. Most venture organizations raised money either through closed-end funds or the SBICs described above. The annual flow of money into private equity during its first three decades never exceeded a few hundred million dollars and usually was less. During these years, while a few funds made a considerable number of investments in buyouts and other transactions involving mature companies, private equity organizations were universally referred to as venture capital funds.

The activity in the private equity industry increased dramatically in late 1970s and early 1980s. Industry observers attributed much of the shift to the U.S. Department of Labor’s clarification of the Employee Retirement Income Security Act’s “prudent man” rule in 1979. Prior to this, the legislation limited the ability of pension funds to invest substantial amounts of money into venture capital or other high-risk asset classes. The Department of Labor’s clarification of the rule explicitly allowed pension managers to invest in high-risk assets, including private equity. Numerous specialized funds—concentrating in areas such as leveraged buyouts, mezzanine transactions and such hybrids as venture leasing—sprang up in response. Another important change in the private equity industry during this period was the rise of the limited partnership as the dominant organizational form.

Meanwhile, another change occurred during the 1980s and affected the buyout industry specifically: the creation of the high-yield bond or “junk-bond” market by Michael Milken and Drexel Burnham Lambert. Prior to this, private equity firms borrowed primarily through traditional banks.

¹⁵ Bean, *op. cit.*, 56.

Banks financed companies based on two criteria: cash flow and liquidation value (asset-backed lending). Often banks sought to ensure they had two ways out of any lending situation, to limit the loss of their capital (the so-called “belt and suspenders” approach). As a result, private equity groups had limited scope for their acquisition opportunities.

The new high-yield market changed the landscape by enhancing the availability of debt. Complex financial structures became commonplace, with several layers of debt: senior bonds were the first to be repaid, junior the second, down to junk, which would be the last to be repaid in the case of distress. The bond’s interest rate rose with the risk of loss. Through Drexel, buyout groups were able to structure transactions that frequently involved publicly traded debt, often employing leverage levels that reached as high as 90 percent or 95 percent of the total capital structure. Buyout firms could thus increase their borrowing capacity and improve or “juice” their return on equity. Using junk bonds, private equity firms could acquire companies of increased scale and size, producing returns on more mature businesses that resembled those of venture capital or growth equity in some cases. Drexel’s high-yield market transformed the buyout industry from a cottage industry into an international behemoth with multi-billion-dollar funds and facilitated the buyout boom of the 1980s. This culminated in KKR’s acquisition of RJR Nabisco (financed by Drexel), the largest and most visible buyout to date.¹⁶

The subsequent years saw both very good and trying times for private equity investors. On the one hand, in the 1980s venture capitalists backed many of the world-changing high-technology companies, including Cisco Systems, Genentech, Microsoft, and Sun Microsystems. Numerous successful buyouts—such as Avis, Beatrice, Dr. Pepper, Gibson Greetings, and McCall Pattern—garnered considerable public attention during that period. At the same time, new commitments to the private equity industry were very uneven. The annual flow of money into venture capital funds increased by a factor of ten during the first half of the 1980s, but steadily declined from 1987 through 1991. Buyouts underwent an even more dramatic rise through the 1980s, followed by a precipitous fall at the end of the decade.

Much of this pattern was driven by the changing fortunes of private equity investments. Returns on venture capital funds had declined sharply in the mid-1980s after being exceedingly attractive in the 1970s. This fall was apparently triggered by overinvestment in a few industries, such as computer hardware, and the entry of many inexperienced venture capitalists. Buyout returns underwent a similar decline in the late 1980s, due in large part to the increased competition between groups for transactions. Moreover, the market for financing dried up in 1989 after Rudy Giuliani, then the U.S. attorney in Manhattan, persuaded a grand jury to indict Drexel’s Michael Milken on 89 charges, including racketeering and securities fraud. (In 1990, Milken pled guilty to six lesser charges and served nearly two years in jail. Many of the savings and loans that were large holders of junk bonds failed, leading to an expensive federal bail-out.) As investors became disappointed with returns and the types of highly leveraged deals that had characterized the 1980s became impossible to arrange, capital for the industry dried up.

The 1990s saw several of these patterns repeated on an unprecedented scale. During much of the decade, almost every part of the private equity industry experienced dramatic growth and excellent returns. This recovery was triggered by several factors. The exit of many inexperienced investors at the beginning of the decade insured that the remaining groups faced less competition for transactions. A healthy market for initial public offerings during the period meant that it was easier for all investors to exit private equity transactions. Meanwhile, the extent of technological innovation—particularly in information technology—related industries—created extraordinary opportunities for venture capitalists. New capital commitments to both venture and buyout funds rose in response to these changing circumstances, reaching record levels by the late 1990s and 2000.

¹⁶ This transaction is documented in Bryan Burrough and John Helyar, *Barbarians at the Gate: The Fall of RJR Nabisco* (New York: Harper Collins, 1990).

But as is often the case, this growth could not be sustained. Institutional and individual investors—attracted especially by the tremendously high returns enjoyed by venture funds—flooded money into the industry. In many cases, good firms staggered under the weight of capital. In others, firms that should not have raised capital succeeded in garnering considerable funds. Excessive growth led to overstretched partners, inadequate due diligence, and, in many cases, poor investment decisions. Moreover, the pressure to put their larger funds to work led to price inflation among potential portfolio companies and reduced eventual returns. The first years of the 21st century saw the venture capital industry address this legacy, and appropriately “scaling” the firm became a major topic of concern.

Meanwhile, the buyout sector underwent a tremendous boom between 2004 and 2007. Fueled by the increased appetite of institutional investors for alternative investments; a greater willingness of boards of directors and managers to sell to private equity groups, primarily buyout firms; and—last but not least—a wave of debt on generous terms and with few protective covenants; the industry experienced explosive growth. As in many earlier booms, as the influx of capital continued, valuations rose and standards for undertaking deals (generally) fell. Because of the sheer amount of money deployed, as well as the dramatic speed with which the global recession arrived, the ensuing downturn was particularly dramatic. Both venture and buyout funds struggled with portfolio companies that had severe difficulties, while investors (whether equity or debt providers) were unwilling to commit additional capital.

The 2010s and early 2020s saw similar cycles play out on a larger scale. In the early part of the 2010s, the prospects for venture capital looked bleak. Even top investors such as the Yale endowment had realized annualized returns of under 1 percent in the previous decade.¹⁷ The Kauffman Foundation went as far as to proclaim the venture capital market “broken.”¹⁸ But as is so often the case, this time of pessimism proved to be a great time to invest. The rise of social media applications, Web-enabled services, and (later in the decade) cryptocurrency created tremendous opportunities for established players such as Sequoia and Sutter Hill, as well as brash new entrants like Andreessen Horowitz (established in 2009). Meanwhile, a plethora of new groups, from micro funds such as Cowboy Ventures to individual investment platforms such as AngelList, sprung up. The robust market for new offerings led to success after success, including the initial public offerings such as Alibaba in 2014, Snap in 2017, and Airbnb in 2021. Investors such as Yale, who tripled their exposure to venture capital in the 2010s despite the poor historical performance, were handsomely rewarded.

The success of venture funds did not go unnoticed for long. The 2010s saw the increased importance of later-stage specialists such as Yuri Milner’s DST Global, as well as the crossover of many mutual, private equity, and hedge funds into venture investing. But arguably the biggest impact was from two players. Softbank, the Japanese technology holding company that had been a major player in the dot com boom, reinserted itself into the market with a \$100 billion Vision Fund in 2017, anchored by a \$45 billion investment from the Saudi Public Investment Fund.¹⁹ By many metrics, this was 30 times larger than any previous venture fund. Softbank invested in later-stage companies with abandon, achieving great success with transactions such as Coupang, Didi, and

¹⁷ Josh Lerner and Ann Leamon, “Yale University Investment Office: February 2011,” 2012, Harvard Business School Case No. 9-812-062.

¹⁸ Diane Mulcahy, Bill Weeks, and Harold S. Bradley, “We Have Met the Enemy. . . and He Is Us: Lessons from Twenty Years of the Kauffman Foundation’s Investments in Venture Capital Funds and the Triumph of Hope Over Experience,” Ewing Marion Kauffman Foundation, 2012, https://www.kauffman.org/wp-content/uploads/2012/05/we_have_met_the_enemy_venture_capital_report_kauffman_foundation.pdf.

¹⁹ For more on the Vision Fund, see Tom Nicholas, Ramana Nanda, and Benjamin N. Roth, “Masayoshi Son and the Vision Fund,” 2018, Harvard Business School Case No. 9-819-041; for the most balanced treatment of Tiger Management, see Chapter 12 in *Mallaby, op. cit.*

Uber, but also crushing losses from its exposure to WeWork and many Chinese technology firms after the government clampdown there in the early 2020s. Meanwhile, the hedge fund Tiger Global aggressively invested in early-stage financings, often differentiating itself from other groups by making quick decisions and paying astronomical valuations.

Meanwhile, the private equity groups did not sit on the sidelines. Many groups became increasingly active in growth investing, attracted by the success that TPG had experienced from its investments in Airbnb, Spotify, and Uber.²⁰ These investments were often in far riskier companies than their traditional exposures and, consequentially, were structured with far less debt. Meanwhile, groups expanded into areas such as the life sciences (e.g., Blackstone's acquisition in 2018 of life sciences fund Clarus, which was rebranded as Blackstone Life Sciences). These groups also pursued more traditional transactions, such as the \$40 billion acquisition of Telecom Italia by KKR in 2021 and \$34 billion acquisition of Medline Industries by Blackstone, Carlyle, and Hellman & Friedman, both of which took place in 2021.

These groups also differentiated themselves by pursuing new strategies, from special situations (investments that did not fall into any standard category) to interests in other partnerships to infrastructure. Blackstone was a standout in this regard, managing nearly 60 strategies in 2022, up from 35 five years ago.²¹ Other groups also displayed considerable creativity, such as the pursuit of new investment types, ranging from music royalties to sports teams, and the development of product lines focusing on new financial instruments, including special-purpose acquisition companies (also known as SPACs). Another source of innovation was in developing new sources of capital. For instance, Apollo acquired an insurance company, Athene, which provided a captive source of funds and freed it from some of the pressures of traditional fundraising. Meanwhile, many groups began aggressively courting high-net-worth individuals.

But as always, what comes up must go down. The COVID-19 pandemic initially led to a sharp drop in valuations and fundraising, but it proved to be short-lived as markets roared back with the help of huge government stimulus. But the unsettled times that began in 2022 seemed to be different. The combination of high inflation (which adversely affected credit-dependent private equity groups in particular), falling public markets (which limited the ability to exit investments at an attractive price), and political and economic uncertainty led to a sharp pullback of activity. Layoffs, bankruptcies, and a more cautious approach were the inevitable consequences. While the effects were clearest initially in the overheated venture market (Tiger Management's hedge fund, for instance, reported a loss of more than half its value between January and May 2022, after a 7 percent loss in 2021²²), the consequences of this correction are likely to be more general.

But while the booms and busts in private equity investment have attracted the bulk of public attention, the most revolutionary recent changes in the industry have been in the structure of the private equity firms themselves. Private equity organizations, while in the business of funding innovation, were remarkably steadfast in retaining the limited partnership structure between the mid-1960s and the late 1990s. In recent years, however, a flurry of experimentation has occurred as firms try to resolve the question of structure and scale. Among the changes have been the establishment of affiliate funds in different regions and nations and the expansion of the funds to include real estate, mezzanine, distressed debt, and bond funds. The Blackstone Group's decision to offer shares to the public in June 2007—followed by peers such as KKR, TPG, EQT, and CVC—was

²⁰ For an overview of the strategy of TPG Growth, see Preeti Singh, "TPG Growth Is Rapidly Deploying Its Latest Fund," *Wall Street Journal*, September 10, 2021, <https://www.wsj.com/articles/tpg-growth-is-rapidly-deploying-its-latest-fund-11631271600>.

²¹ Kirk Falconer, "Blackstone's Road to \$1trn of Assets Paved with New Strategies," *Buyout Insider*, June 8, 2022, <https://www.buyoutsinsider.com/blackstones-road-to-1trn-of-assets-paved-with-new-strategies/>.

²² Chris Metinko, "Tiger Global Declawed by Market Woes," *Crunchbase News*, June 2, 2022, <https://news.crunchbase.com/public/tiger-global-warning-losses-tech-selloff/>.

only the culmination of a period of intensive structural experimentation by private equity groups. The restructuring of venture capital firms like Sequoia, Bessemer Venture Partners, and Battery as registered investment advisors (RIAs) indicates a similar evolution.

What explains these sudden changes on the part of the major private equity groups in recent years? We believe that this reflects a more fundamental shift in the industry, as groups struggle to address the increasing efficiency of their sector. Facing increased competition, they are seeking new ways to differentiate themselves.

Evidence of the private equity industry's increased efficiency abounds. While private equity for much its first decades had the flavor of a cottage industry, with a considerable number of small firms working alongside one another, today it is much more competitive, with industry data showing that over 13,000 firms worldwide managed \$7.5 trillion in 2021.²³

Given this changing competitive environment, the leading firms are increasingly seeking to differentiate themselves from the mass of other investors. They are employing a variety of tools to build up and distinguish their “brands.” These steps include strategic partnerships, the expansion of international operations, the provision of additional services, and aggressive fundraising as well as many other initiatives to extend and build their visibility in the United States and abroad. Undoubtedly, private assets have become far more central to the portfolio of institutional investors: U.S. pensions, for instance, doubled their exposure to alternatives between 2001 and 2021 (private capital plus real assets such as real estate and natural resources), from 15 percent to over 30 percent.²⁴

To be sure, private equity is not unique in this transformation. For instance, the investment banking industry underwent a similar change in the 1950s and 1960s, as the top “bulge bracket” firms solidified their leadership positions. The gap between the leading banks and the following ones greatly increased during these years, as the top groups enhanced their range of activities and boosted their hiring of personnel. Similarly, the management of the major banks was transformed during these years, as procedures were systematized, and management structures formalized. Similar patterns appear to be at play in the private equity industry, although it is too soon to tell conclusively.

ABOUT THIS VOLUME

This volume is based on a course introduced at Harvard Business School in the 1993–94 academic year. “Venture Capital and Private Equity” has attracted students interested in careers as private equity investors, as managers of entrepreneurial companies, as pension fund or family office managers, or as investment bankers or other intermediaries who work with private equity firms and the companies that they fund. The materials developed for this course have also been used in a variety of other settings, such as executive education courses at Harvard and graduate and undergraduate entrepreneurship courses at many other business schools.

A natural question for a reader to ask is what will be learned from this volume. This textbook has four goals:

- First, the private equity industry is complex. Participants in the private equity industry make it even more complicated by using a highly specialized terminology. These factors often make the world of venture capital and buyout investing appear impenetrable to the uninitiated.

²³ Preqin, *Preqin Special Report: Private Capital Compensation and Employment* (London: Preqin, 2022); McKinsey & Co., *op. cit.*

²⁴ Charlie McGrath, “Asset Class Divide Emerges as Us Public Pensions’ Alternatives Allocations Level Off,” Preqin Insights, 2021, <https://www.preqin.com/insights/research/blogs/asset-class-divide-emerges-as-us-public-pensions-alternatives-allocations-level-off>.

Understanding the ways in which private equity firms work—as well as the key distinctions between these organizations—is an important goal.

- Second, private equity investors face the same problems that other financial investors do, but in extreme form. An understanding of these problems faced—and the ways that these investors solve them—should provide more general insights into the financing process. Thus, a second goal is to review and apply the key ideas of corporate finance in this exciting setting.
- Third, the process of valuation is critical in private equity. Disputes over valuation—whether between an entrepreneur and a venture capitalist or between a private equity firm raising a new fund and a potential investor—are commonplace in this industry. These disputes stem from the fact that valuing early-stage and restructuring companies can be very challenging and highly subjective. This casebook explores a wide variety of valuation approaches, from techniques widely used in practice to methods less frequently seen in practice today but likely to be increasingly important in the future years.
- Finally, the private equity industry is going through a period of enormous change. During the recent boom, buyout firms routinely raised funds in excess of \$20 billion, while the sizes of many venture funds rose ranged from \$2 billion to \$4 billion (ignoring the \$100 billion of Softbank’s Vision Fund I). Private equity firms have established international operations on levels previously unprecedented and experimented with organizational structures such as publicly traded funds. This casebook explores different approaches that firms are using to manage portfolios and offices that are global in scope and imply flows of funds on an international scale that was unthinkable even three years ago.

The volume is divided into 14 chapters. The organization of Chapters 2 through 7 mirrors that of the private equity process, which can be viewed as a cycle. The cycle starts with the raising of a private equity fund; proceeds through choosing, investing in, monitoring, and adding value to companies; continues as the private equity firm exits successful deals and returns capital to its investors; and renews itself with the seeking of additional funds. Different classes, however, may choose to use this volume in different ways.²⁵ Thus, it may be helpful to summarize the organization of the volume briefly at the outset.

Chapter 2 focuses on how private equity funds are raised and structured. These funds often have complex features, and the legal issues involved are frequently arcane. But the structure of private equity funds has a profound effect on the behavior of venture and buyout investors. Consequently, it is as important for the entrepreneur raising private equity to understand these issues as it is for an investor in a fund. The chapter seeks not only to understand the features of private equity funds and the actors in the fundraising process but also to analyze them. We map out the major investors in private equity firms, the intermediaries who help them, and the nuances of investment structures. We also explore the increased propensity of private capital groups to go public and sell stakes in themselves to investors. We focus on not just understanding the features of these agreements but the way in which they affect incentives, whether in a positive or problematic manner.

The third chapter turns to the investment process. We look here at the way in which transaction opportunities are assessed. We begin with the question of how entrepreneurs can most effectively pitch their businesses. What makes an effective business plan? A three-minute “elevator pitch”? We also consider what entrepreneurs should be looking for as they assess potential investors. Since private equity groups promise to provide “more than money,” it is essential to understand the signs of a good investor. We then turn to the other side of the table and consider the perspective of prospective investors. We review the key criteria used during the due diligence process. What

²⁵ While some courses may follow closely the order of chapters in the volume, others may deviate substantially. For instance, a course concentrating on entrepreneurial finance may focus on Chapters 3 through 7, 10, and 14.

key questions are asked? And how is the process managed? We review the key steps and decision points, as well as the way that private equity groups use others to help them in their decision-making process. We finally end with two special situations that are frequently important in the investment process. First, we focus on serial entrepreneurs: individuals who receive funding after having run an earlier venture. Many groups favor such investors—even if they have failed—for reasons that we will see are often quite logical. We also look at sharing deals with other firms, and whether these syndicated “club deals” can lead to better decisions.

We next turn in Chapter 4 to perhaps the most challenging part of the due diligence process, the question of valuation. We begin by discussing why the valuation of private companies is challenging—the absence of public market indicators, the presence of information gaps, and the dramatic shifts in comparable valuations over the investment period, among other problems, make this a challenging exercise. We then run through the key methodologies employed in practice. Each of the methodologies, from multiples to outcome tables to adjusted present value techniques, has specific strengths and weaknesses. We seek to understand when each makes the most sense, and argue that in many cases, a “big tent” approach employing a variety of methodologies is likely to give the best answer. We end by considering the “methodologies of the future”: while in many financial markets, sophisticated valuation methodologies employing option pricing and binomial tree approaches have become standard; in private equity these approaches are much less common. In part, this may reflect the inherent difficulty of valuation in this environment, but it also may reflect the practitioners’ resistance to change.

In the fifth chapter, we explore the structure of transactions. We begin with the building blocks: the key securities that are used in private equity deals and the motivations for them. We then walk through the various covenants found in venture and buyout deals. Throughout, our goal is twofold: both to understand how these features work—for instance, we walk through the workings of the various forms of anti-dilution provisions—and to explore *why* these various elements have become crucial parts of private equity transactions. One key point will be that there are frequently many different ways to achieve the same economic goal. The chapter also explores some of the special terms seen in transactions other than venture and buyouts, for instance, the rise of novel deal structures such as Simple Agreement for Future Equity (SAFE) notes for young start-ups, and how these terms and the capital structure can evolve over time.

While the previous three chapters have looked at different dimensions of the deal-making process, Chapter 6 considers what happens after the money is invested. We begin by considering how firms supervise the companies in which they invest. These governance features range from the formal (board seats and special voting rights) to more informal controls. We also consider the powerful privileges that providing capital in stages gives investors, particularly when financing early-stage companies. We explore what venture and buyout groups are looking for as they oversee investments, and their roles both in normal times and when the unexpected happens (which sadly often is bad news). As we will see, reworking transactions when the unfortunate tidings arrive is a critical skill for private equity investors.

The seventh chapter examines the process through which private equity investors exit their investments. Successful exits are critical to ensuring attractive returns for investors and, in turn, to raising additional capital. But private equity investors’ concerns about exiting investments—and their behavior during the exit process itself—can sometimes lead to severe problems for entrepreneurs. We will employ an analytic framework very similar to that used in the third chapter. We seek to understand the key institutional features associated with exiting private equity investments: the choices between going public, trade sales, secondary buyouts, and other deals and the players who facilitate these choices. We explore innovations such as direct listings and SPACs. Throughout, we seek to discern between features that increase the overall number of profits from private equity investments and those that seem to be intended to shift more of the profits to particular parties.

The final part of this section will look explicitly at evolution of transactions globally. While our discussion in the prior section will frequently draw on examples from outside the United States, the extent of differences across countries suggests the need for a more careful look at the topic. We begin by looking at the history of global private equity initiatives, the efforts by governments to encourage these activities, and the many mishaps that befell the pioneers in this arena. The chapter then turns to understanding the key features of and differences between the major markets in which venture firms are active, including Europe, India, China, and the Middle East. The rise of global venture capital will be a major focus. We then step back and ask the question of what makes a good market for venture and buyout investors. We highlight the features that have been associated with more activity, as well as more successful deals.

The next two chapters are grouped under the heading of “keeping score,” and seek to assess the performance of private equity funds. Chapter 9 looks at the measurement of performance by private equity groups. We begin by discussing why this is a hard problem: because it is difficult to measure the true value of private companies, assessing the performance of funds is problematic until they are wrapped up. But since a fund can take a decade or longer to be fully harvested, the information’s usefulness has often expired. Having explored the challenges, the chapter considers the evidence on the performance of private equity funds. We compare the performance of public and private equities. In the final part of the chapter, we highlight how investors can go beyond measuring risk to managing it. We highlight how to create portfolios of funds—how to combine different funds in a way which maximizes performance.

The tenth chapter looks at another way of keeping score and assesses the impact of private equity on society as a whole. Even if private equity firms have generated spectacular returns for their investors, we would have hard questions if there were no benefits to society as a whole. This chapter looks first at venture funding of new companies and discusses the evidence that venture funding allows firms to be more innovative and faster growing. We then turn to buyout investments in more mature firms, including studies in specific industries. This discussion begs the question of what public policies make the most sense when it comes to private capital, whether to encourage more capital or to curtail anticompetitive behaviors and those that introduce systemic risks. While there are few easy answers, we consider the various arguments in this lively and still ongoing debate.

The next three chapters consider what we term the “business of private equity.” From reading media accounts, one might conclude that venture and buyout investors lead glamorous lives, more akin to a rock star than a banker. While there may be a grain of truth here (at least when markets are doing well!), it is important to realize that managing a private equity organization, like any professional service firm, is hard work.

Chapter 11 examines this challenging territory. We begin by reviewing the typical career in a private equity firm, from associate to managing general partner. We then explore the challenges associated with building and maintaining a firm. We start with the people issues: the need to retain a team. We also consider the question of strategy and what constitutes an effective investment approach. Finally, we turn to the special challenges faced by affiliated groups, such as those that are part of an investment bank or manufacturing company. We highlight that while many of the management challenges are similar, affiliated groups also face some daunting issues that are specific to such “captive” funds. We also discuss the persistent challenges with diversity that the industry has faced.

Chapter 12 looks at how firms evolve over time and the management challenges that these changes pose. As we highlighted earlier, many private equity groups have raised far larger funds than previously and sought to expand their product mix and geographic range, a phenomenon that began in the private equity industry and shifted over to venture capital. If we look over the history of the industry, rapid expansion has generally not ended well: far too often rapid growth has led to deterioration in the returns that investors enjoy, and sometimes to outright disaster. This chapter

reviews what the evidence suggests are the likely times when growth proves challenging, as well as when the effects are not harmful.

The thirteenth chapter is particularly timely considering the dramatic booms and busts that have characterized the buyout market over the past few years. Our initial focus will be on understanding why the private equity market from its earliest days through the 2020s has been characterized by a stop/start pattern, where an initial period of success leads to too much money being raised and a crash in returns and activity. We then turn to what kind of management strategies can be most effective in this kind of chaotic environment.

The final chapter considers the future of the private equity industry. Much of the discussion in the book is designed to provide an understanding of the history of the private equity industry's development and the workings of the industry today. Because the studies and cases that these chapters draw on must look at events in the past, they provide less guidance about the industry's future. The question of how the venture and buyout industries will evolve over the next decade is particularly critical because the growth in the recent past was so spectacular and the industry's effect on the overall economy has become significant. It is natural to ask whether the sharp growth of activity discussed earlier was an aberration. Will the level of fundraising and investment continue to grow? Or will the patterns reverse? To what extent will the globalization of the private equity industry continue in a world that seems increasingly balkanized?

While we will cover many topics in this volume, at the same time, it is important to emphasize that there are many opportunities for learning about venture capital and private equity beyond its covers. Each of the chapters suggests further readings. These range from industry newsletters to blogs to handbooks on the legal nuances of the private equity process to academic studies. Many information sources exist for readers who wish to explore a particular aspect of the private equity industry in more detail.

WHAT ARE THE KEY THEMES IN THE TEXTBOOK?

Despite the variance across types of private equity (venture capital, growth equity, and buyout) scale, geography and industry sector, there are seven key common themes that emerge from the discussion of the industry in all its forms:

1. **Illiquidity.** All private equity deals start out as illiquid (or they would not be private). Therefore, private equity investing is necessarily long-horizon investing and demands that the investor is active in the affairs of the portfolio company. For example, if an investor holding a large public stock, such as General Motors, is dissatisfied with the company's direction, her first option is simply selling the stock. A private equity investor with similar feelings about one of his portfolio companies does not have such an option. But the private equity investor, by the nature of the terms of the investment, always has more direct options to change management either through the board of directors or as a large active shareholder. The fact of illiquidity also drives decisions about financing and exiting. Since there is no assurance of liquidity at a given time, a private equity investor must always consider their capability to carry an investment for an indeterminate amount of time. Therefore, they may alter a strategic decision to require less capital, force an early exit to avoid financing risk, or invite other private equity firms to join in a syndicate to reduce that risk. Likewise, illiquidity can force hard choices. For example, a venture capital investor may be forced to decide between an unattractive merger option and an unattractive financing.

Illiquidity also motivates the private equity fund structure. Most private equity funds are structured as long-term limited partnerships of 10 years or more. They rely on the aligning effect of profit sharing (the carried interest) to keep LPs and general partners aligned.

Illiquidity also motivates structure at the portfolio company level. Most venture capital investments are in the form of preferred stock with liquidation preferences and control provisions, and buyout firms often structure deals to allow for recapitalization with dividends.

2. **Uncertainty and information gaps.** In private equity, evaluating performance is hard. Valuation is difficult because there is no continuous pricing—as there is with public stocks—and information on portfolio companies is often incomplete. Even when there is information, tools for valuation are limited since most valuation methodologies have been developed for markets with continuous pricing.

Beyond evaluating performance, practitioners must often act on very limited information. In the venture capital setting, the investor may be evaluating an investment with the key features of a new technology being applied to a new market by inexperienced managers. In the buyout setting, an investor may be forced to make a decision on a complex enterprise with global operations in a specific and obscure industry in a compressed time frame.

Given this environment, how can private equity ever succeed? The answer lies in the fact that the investor can influence the result through deal structure (e.g., making failure costly and adding governance), through value-added activities (for instance, contacts and consulting), and through the ability to recontract (i.e., if all else fails push restart).

3. **Cyclicality.** Everything about private equity is cyclical: IPOs and trade sales, valuations and fund raising. Private equity funds themselves have a long lead time and a long gestation period to realization, so private equity organizations must raise money when they can. Portfolio companies must also follow the same strategy, heightening the industry's cyclicality. Private equity firms must react strategically as the private equity cycles wax and wane. Firms often shift from market to market and must be on the lookout for new niches and new deal structures.

4. **Certification.** Information risks can be limited through repeated relationships. For example, while an emerging company may only have one IPO in its life, the venture capital firms that sponsor them regularly deal with the underwriters and the public markets. Private equity firms can also facilitate corporate ties to give their portfolio companies a boost. Even the relationship between LPs and private equity firms has a strong element of certification since LPs tend to have long relationships with their private equity managers.

But certification can also be abused. Buyout firms can abuse their relationships with their debt providers and over-leverage their companies; and venture capitalists can push problematic companies into the public market too quickly. Reputation, therefore, is a valuable currency to be husbanded in the private equity industry.

5. **Incentives.** In an industry fraught with information asymmetries and characterized by illiquidity that handcuffs the participants together, the incentive systems keep the interests of the parties aligned. By the nature of the industry, it is very hard to get money out of illiquid investments. At the same time, private equity groups need lots of discretion to pursue opportunities unforeseen at the time of the fund closing: many things cannot be defined in a contractual relationship. For example, the opportunities for buyout firms in the reinsurance industry that would appear after the September 2001 terrorist attacks would not have been apparent in the late 1990s. Similarly, the acceleration of e-commerce, home delivery, and remote work in the aftermath of the COVID-19 pandemic was foreseen by few in 2019.

But compensation can be dysfunctional. Management fees and transaction fees—originally designed to cover expenses—have become very substantial in their own right at many mega funds. Sales of management companies can reduce the alignment between limited and general partners. High fees can encourage asset gathering and excessively safe investment strategies. In an industry with many intermediaries between the LPs and the

private equity firms, rewards to these middlemen are not necessarily tied to results. Clear benchmarks and the power of reputation are important aspects of incentives within the private equity industry.

6. Deal context. In this industry, results can differ depending on whether private equity firm A or private equity firm B invests on the same terms in the same company. It is not surprising that there is no such thing as a “good deal” in absolute terms. Firm-specific and time-specific environmental attributes, as well as company and industry characteristics, are all inputs to private equity decisions. This is a more fluid and complex world than most investment categories.

7. Career management. Private equity has become an attractive career option for a variety of people with business, finance, consulting, and legal backgrounds. Moreover, with the growth of the industry, there is a need for more and better trained professionals. Throughout this book, we try to highlight some of the career choices participants can make and analyze their consequences.

As highlighted in the above discussion and the cases in this volume, much is still not yet known about the future of the private equity industry. It seems clear, however, that this financial intermediary will be an exciting and important feature on the global economic landscape in the years to come.